

CONTAINS NO CBI



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Comprehensive Assessment Information Rule  
REPORTING FORM

When completed, send this form to:

Document Processing Center  
Office of Toxic Substances, TS-790  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, DC 20460  
Attention: CAIR Reporting Office

For Agency Use Only:

Date of Receipt: \_\_\_\_\_

Document  
Control Number: \_\_\_\_\_

Docket Number: \_\_\_\_\_

SECTION 1 GENERAL MANUFACTURER, IMPORTER, AND PROCESSOR INFORMATION

PART A GENERAL REPORTING INFORMATION

1.01 This Comprehensive Assessment Information Rule (CAIR) Reporting Form has been completed in response to the Federal Register Notice of..... [7]2 [2]2 [8]8  
CBI mo. day year

☐ a. If a Chemical Abstracts Service Number (CAS No.) is provided in the Federal Register, list the CAS No. .... [0]2[6]4[7]1-[6]2-[5]

b. If a chemical substance CAS No. is not provided in the Federal Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the Federal Register.

(i) Chemical name as listed in the rule ..... NA

(ii) Name of mixture as listed in the rule .... NA

(iii) Trade name as listed in the rule ..... NA

c. If a chemical category is provided in the Federal Register, report the name of the category as listed in the rule, the chemical substance CAS No. you are reporting on which falls under the listed category, and the chemical name of the substance you are reporting on which falls under the listed category.

Name of category as listed in the rule ..... NA

CAS No. of chemical substance ..... [ ][ ][ ][ ][ ]-[ ][ ]-[ ][ ]

Name of chemical substance ..... NA

1.02 Identify your reporting status under CAIR by circling the appropriate response(s).

CBI Manufacturer ..... 1

☐ Importer ..... 2

Processor ..... 3

X/P manufacturer reporting for customer who is a processor ..... 4

X/P processor reporting for customer who is a processor ..... 5

☐ Mark (X) this box if you attach a continuation sheet.

1.03 Does the substance you are reporting on have an "x/p" designation associated with it in the above-listed Federal Register Notice?

CBI Yes ..... ☒ Go to question 1.04

☐ No ..... ☐ Go to question 1.05

1.04 a. Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response.

CBI Yes ..... 1

☐ No ..... ②

b. Check the appropriate box below:

☐ You have chosen to notify your customers of their reporting obligations

Provide the trade name(s) .... NA

NA

☒ You have chosen to report for your customers

☐ You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.

1.05 If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.

CBI Trade name ..... ELASTOFLEX C 2010 U ISOCYANATE

☐ Is the trade name product a mixture? Circle the appropriate response.

Yes ..... ①

No ..... 2

1.06 Certification -- The person who is responsible for the completion of this form must sign the certification statement below:

CBI "I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."

BENNIE STORO  
NAME

Bennie Storo  
SIGNATURE

5-19-89  
DATE SIGNED

SAFETY & SECURITY  
TITLE

(218) 463 - 2312  
TELEPHONE NO.

SUPERVISOR

☐ Mark (X) this box if you attach a continuation sheet.

- 1.07 Exemptions From Reporting -- If you have provided EPA or another Federal agency with the required information on a CAIR Reporting Form for the listed substance within the past 3 years, and this information is current, accurate, and complete for the time period specified in the rule, then sign the certification below. You CBI ☐ are required to complete section 1 of this CAIR form and provide any information now required but not previously submitted. Provide a copy of any previous submissions along with your Section 1 submission.

"I hereby certify that, to the best of my knowledge and belief, all required information which I have not included in this CAIR Reporting Form has been submitted to EPA within the past 3 years and is current, accurate, and complete for the time period specified in the rule."

<u>NA</u> NAME	<u>NA</u> SIGNATURE	<u>NA</u> DATE SIGNED
<u>NA</u> TITLE	( ) <u>-</u> TELEPHONE NO.	<u>NA</u> DATE OF PREVIOUS SUBMISSION

- 1.08 CBI Certification -- If you have asserted any CBI claims in this report you must certify that the following statements truthfully and accurately apply to all of those confidentiality claims which you have asserted.

CBI ☐ "My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures; the information is not, and has not been, reasonably ascertainable by other persons (other than government bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent; the information is not publicly available elsewhere; and disclosure of the information would cause substantial harm to my company's competitive position."

<u>NA</u> NAME	<u>NA</u> SIGNATURE	<u>NA</u> DATE SIGNED
<u>NA</u> TITLE	( ) <u>-</u> TELEPHONE NO.	

☐ Mark (X) this box if you attach a continuation sheet.

## 1.09 Facility Identification

Dun & Bradstreet Number .....[0][5]-[4][5][1]-[5][8][6][1]

EPA ID Number .....[6][8][1][5][5][0][0][0][1]

Employer ID Number .....[N][A]\_ \_ \_ \_ \_

Primary Standard Industrial Classification (SIC) Code .....[3][7][9][9]

Other SIC Code .....[N][A]\_ \_ \_

Other SIC Code .....[N][A]\_ \_ \_

Dun & Bradstreet Number .....[0][5]-[4][5][1]-[5][8][6][1]

Employer ID Number .....[N][A]-[ ][ ][ ][ ][ ][ ]

6

### 1.11 Parent Company Identification

[illegible]

## 1.12 Technical Contact

CBI Name [B][E][N][N][I][E] [S][T][O][R][O] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  
[ ] Title [S][A][F][E][T][Y] [S][U][P][E][R][V][I][S][O][R] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  
Address [H][W][Y] [8][9] [S][O][U][T][H] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  
Street  
[R][O][S][E][A][V] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  
City  
[M][N] [5][6][7][5][1]--[ ] [ ] [ ]  
State Zip  
Telephone Number ..... [2][1][8]-[4][6][3]-[2][3][1][2]

1.13 This reporting year is from ..... [0] [1] [8] [7] to [1] [2] [8] [8]  
Mo. Year Mo. Year

☐ Mark (X) this box if you attach a continuation sheet.

[illegible]

```
CBI Name of Buyer [N][A] _ _ _ _ _  
[ ] Mailing Address [ ] _ _ _ _ _ Street  
                        [ ] _ _ _ _ _ City  
                                [ ] State      [ ] -- [ ] Zip  
  
Employer ID Number ..... [ ] _ _ _ _ _  
Date of Purchase ..... [ ] Mo.   [ ] Day    [ ] Year  
Contact Person [ ] _ _ _ _ _  
Telephone Number ..... [ ] - [ ] - [ ]
```

8

1.16 For each classification listed below, state the quantity of the listed substance that was manufactured, imported, or processed at your facility during the reporting year.

CBI

☐

Classification

Quantity (kg/yr)

Manufactured ..... 0.0

Imported ..... 0.0

Processed (include quantity repackaged) ..... 505978

Of that quantity manufactured or imported, report that quantity:

In storage at the beginning of the reporting year ..... NA

For on-site use or processing ..... NA

For direct commercial distribution (including export) ..... NA

In storage at the end of the reporting year ..... NA

Of that quantity processed, report that quantity:

In storage at the beginning of the reporting year ..... 63910

Processed as a reactant (chemical producer) ..... NA

Processed as a formulation component (mixture producer) ..... NA

Processed as an article component (article producer) ..... 505978

Repackaged (including export) ..... NA

In storage at the end of the reporting year ..... 17675

☐ Mark (X) this box if you attach a continuation sheet.



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PART C IDENTIFICATION OF MIXTURES

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- 1.17 Mixture -- If the listed substance on which you are required to report is a mixture or a component of a mixture, provide the following information for each component chemical. (If the mixture composition is variable, report an average percentage of each component chemical for all formulations.)

CBI

☐

Component Name	Supplier Name	Average % Composition by Weight (specify precision, e.g., 45% $\pm$ 0.5%)
2-6 TOLUENE diISOCYANATE	B. A. S. F.	10
2-4 TOLUENE diISOCYANATE	B. A. S. F.	25
ISOCYANATE PREPOLYMER	B. A. S. F.	25
POLYETHANE POLYPHENYL	B. A. S. F.	40
Total		100%

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☐ Mark (X) this box if you attach a continuation sheet.

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SECTION 2 MANUFACTURER, IMPORTER, AND PROCESSOR VOLUME AND USE

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2.01 State the total number of years, including the reporting year, that your facility has  
CBI manufactured, imported, or processed the listed substance.

☐ Number of years manufactured ..... NA yrs.  
Number of years imported ..... NA yrs.  
Number of years processed ..... NA yrs.

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2.02 State the quantity of the listed substance that your facility manufactured, imported,  
or processed during the corporate fiscal year preceding the reporting year.

CBI  
☐ Year ending ..... ☐☐ ☐☐  
Mo. Year  
Quantity manufactured ..... NA kg  
Quantity imported ..... NA kg  
Quantity processed ..... NA kg

---

2.03 State the quantity of the listed substance that your facility manufactured, imported,  
or processed during the 2 corporate fiscal years preceding the reporting year in  
descending order.

CBI  
☐ Year ending ..... ☐☐ ☐☐  
Mo. Year  
Quantity manufactured ..... NA kg  
Quantity imported ..... NA kg  
Quantity processed ..... NA kg  
Year ending ..... ☐☐ ☐☐  
Mo. Year  
Quantity manufactured ..... NA kg  
Quantity imported ..... NA kg  
Quantity processed ..... NA kg

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☐ Mark (X) this box if you attach a continuation sheet.

---

2.04 State the quantity of the listed substance that your facility manufactured, imported, or processed during the 3 corporate fiscal years preceding the reporting year in descending order.

CBI

☐ Year ending ..... [7][2] [8][6]  
Mo. Year

Quantity manufactured ..... 0 kg

Quantity imported ..... 0 kg

Quantity processed ..... 167684 kg

Year ending ..... [7][2] [8][5]  
Mo. Year

Quantity manufactured ..... 0 kg

Quantity imported ..... 0 kg

Quantity processed ..... 144100 kg

Year ending ..... [7][2] [8][4]  
Mo. Year

Quantity manufactured ..... 0 kg

Quantity imported ..... 0 kg

Quantity processed ..... 107800 kg

2.05 Specify the manner in which you manufactured the listed substance. Circle all appropriate process types.

CBI

☐ Continuous process ..... NA 1

Semicontinuous process ..... NA 2

Batch process ..... NA 3

☐ Mark (X) this box if you attach a continuation sheet.

2.06 Specify the manner in which you processed the listed substance. Circle all appropriate process types.

- ☐ Continuous process ..... 1
- ☐ Semicontinuous process ..... 2
- ☐ Batch process ..... 3

2.07 State your facility's name-plate capacity for manufacturing or processing the listed substance. (If you are a batch manufacturer or batch processor, do not answer this question.)

- ☐ Manufacturing capacity ..... U.K. kg/yr
- ☐ Processing capacity ..... U.K. kg/yr

2.08 If you intend to increase or decrease the quantity of the listed substance manufactured, imported, or processed at any time after your current corporate fiscal year, estimate the increase or decrease based upon the reporting year's production volume.

<input type="checkbox"/>	Manufacturing Quantity (kg)	Importing Quantity (kg)	Processing Quantity (kg)
Amount of increase	<u>NA</u>	<u>NA</u>	<u>40000</u>
Amount of decrease	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

2.09 For the three largest volume manufacturing or processing process types involving the listed substance, specify the number of days you manufactured or processed the listed substance during the reporting year. Also specify the average number of hours per day each process type was operated. (If only one or two operations are involved, list those.)

CBI

☐

Days/Year      Average  
Hours/Day

Process Type #1 (The process type involving the largest quantity of the listed substance.)

Manufactured .....	<u>NA</u>	<u>NA</u>
Processed .....	<u>420</u>	<u>8.0</u>

Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)

Manufactured .....	<u>NA</u>	<u>NA</u>
Processed .....	<u>NA</u>	<u>NA</u>

Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)

Manufactured .....	<u>NA</u>	<u>NA</u>
Processed .....	<u>NA</u>	<u>NA</u>

2.10 State the maximum daily inventory and average monthly inventory of the listed substance that was stored on-site during the reporting year in the form of a bulk chemical.

CBI

☐

Maximum daily inventory .....	<u>NA</u>	kg
Average monthly inventory .....	<u>NA</u>	kg

☐ Mark (X) this box if you attach a continuation sheet.

2.11 Related Product Types -- List any byproducts, coproducts, or impurities present with the listed substance in concentrations greater than 0.1 percent as it is manufactured, imported, or processed. The source of byproducts, coproducts, or impurities means the source from which the byproducts, coproducts, or impurities are made or introduced into the product (e.g., carryover from raw material, reaction product, etc.).

CBI

☐

<u>CAS No.</u>	<u>Chemical Name</u>	<u>Byproduct, Coproduct or Impurity<sup>1</sup></u>	<u>Concentration (%) (specify <math>\pm</math> % precision)</u>	<u>Source of Byproducts, Coproducts, or Impurities</u>
<u>U.K.</u>	<u>U.K.</u>	<u>U.K.</u>	<u>U.K.</u>	<u>U.K.</u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

<sup>1</sup>Use the following codes to designate byproduct, coproduct, or impurity:

B = Byproduct  
C = Coproduct  
I = Impurity

☐ Mark (X) this box if you attach a continuation sheet.

- 2.12 Existing Product Types -- List all existing product types which you manufactured, imported, or processed using the listed substance during the reporting year. List the quantity of listed substance you use for each product type as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

a.	b.	c.	d.
Product Types <sup>1</sup>	% of Quantity Manufactured, Imported, or Processed	% of Quantity Used Captively On-Site	Type of End-Users <sup>2</sup>
C	43	35	C S

<sup>1</sup>Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/ Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/ Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

<sup>2</sup>Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

- 2.13 Expected Product Types -- Identify all product types which you expect to manufacture, import, or process using the listed substance at any time after your current corporate fiscal year. For each use, specify the quantity you expect to manufacture, import, or process for each use as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

a.	b.	c.	d.
Product Types <sup>1</sup>	% of Quantity Manufactured, Imported, or Processed	% of Quantity Used Captively On-Site	Type of End-Users <sup>2</sup>
B	43	35	CS

<sup>1</sup>Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/ Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/ Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

<sup>2</sup>Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.



2.14 Final Product -- Complete the following table for each type of final product manufactured, imported, or processed at your facility that contains the listed substance other than as an impurity.

☐

a.	b.	c.	d.
Product Type <sup>1</sup>	Final Product's Physical Form <sup>2</sup>	Average % Composition of Listed Substance in Final Product	Type of End-Users <sup>3</sup>
U.K.	U.K.	U.K.	U.K.

<sup>1</sup>Use the following codes to designate product types:

A = Solvent	L = Moldable/Castable/Rubber and additives
B = Synthetic reactant	M = Plasticizer
C = Catalyst/Initiator/Accelerator/Sensitizer	N = Dye/Pigment/Colorant/Ink and additives
D = Inhibitor/Stabilizer/Scavenger/Antioxidant	O = Photographic/Reprographic chemical and additives
E = Analytical reagent	P = Electrodeposition/Plating chemicals
F = Chelator/Coagulant/Sequestrant	Q = Fuel and fuel additives
G = Cleanser/Detergent/Degreaser	R = Explosive chemicals and additives
H = Lubricant/Friction modifier/Antiwear agent	S = Fragrance/Flavor chemicals
I = Surfactant/Emulsifier	T = Pollution control chemicals
J = Flame retardant	U = Functional fluids and additives
K = Coating/Binder/Adhesive and additives	V = Metal alloy and additives
	W = Rheological modifier
	X = Other (specify) _____

<sup>2</sup>Use the following codes to designate the final product's physical form:

A = Gas	F2 = Crystalline solid
B = Liquid	F3 = Granules
C = Aqueous solution	F4 = Other solid
D = Paste	G = Gel
E = Slurry	H = Other (specify) _____
F1 = Powder	

<sup>3</sup>Use the following codes to designate the type of end-users:

I = Industrial	CS = Consumer
CM = Commercial	H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

2.15 Circle all applicable modes of transportation used to deliver bulk shipments of the CBI listed substance to off-site customers.

<input type="checkbox"/>	Truck .....	NA	1
	Railcar .....	NA	2
	Barge, Vessel .....	NA	3
	Pipeline .....	NA	4
	Plane .....	NA	5
	Other (specify) .....	NA	6

2.16 Customer Use -- Estimate the quantity of the listed substance used by your customers or prepared by your customers during the reporting year for use under each category of end use listed (i-iv).

☐

Category of End Use

i. Industrial Products

Chemical or mixture .....	NA	kg/yr
Article .....	NA	kg/yr

ii. Commercial Products

Chemical or mixture .....	NA	kg/yr
Article .....	NA	kg/yr

iii. Consumer Products

Chemical or mixture .....	NA	kg/yr
Article .....	NA	kg/yr

iv. Other

Distribution (excluding export) .....	NA	kg/yr
Export .....	NA	kg/yr
Quantity of substance consumed as reactant .....	NA	kg/yr
Unknown customer uses .....	NA	kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

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2.17 CBI State the quantity of the listed substance that you exported during the reporting year.

☐

In bulk ..... NA kg/yr

As a mixture ..... NA kg/yr

In articles ..... NA kg/yr

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☐ Mark (X) this box if you attach a continuation sheet.

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### SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

#### PART A GENERAL DATA

3.01 Specify the quantity purchased and the average price paid for the listed substance for each major source of supply listed. Product trades are treated as purchases.  
CBI The average price is the market value of the product that was traded for the listed substance.

☐

<u>Source of Supply</u>	<u>Quantity (kg)</u>	<u>Average Price (\$/kg)</u>
The listed substance was manufactured on-site.	<u>NA</u>	<u>NA</u>
The listed substance was transferred from a different company site.	<u>NA</u>	<u>NA</u>
The listed substance was purchased directly from a manufacturer or importer.	<u>505978</u>	<u>1.19</u>
The listed substance was purchased from a distributor or repackager.	<u>NA</u>	<u>NA</u>
The listed substance was purchased from a mixture producer.	<u>NA</u>	<u>NA</u>

3.02 Circle all applicable modes of transportation used to deliver the listed substance to your facility.

☐

Truck .....	①
Railcar .....	2
Barge, Vessel .....	3
Pipeline .....	4
Plane .....	5
Other (specify) _____	6

☐ Mark (X) this box if you attach a continuation sheet.

3.03 a. Circle all applicable containers used to transport the listed substance to your facility.

☐

Bags ..... 1  
Boxes ..... 2  
Free standing tank cylinders ..... 3  
Tank rail cars ..... 4  
Hopper cars ..... 5  
Tank trucks ..... 6  
Hopper trucks ..... 7  
Drums ..... 8  
Pipeline ..... 9  
Other (specify) \_\_\_\_\_ 10

b. If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks.

Tank cylinders ..... NA mmHg  
Tank rail cars ..... NA mmHg  
Tank trucks ..... NA mmHg

☐ Mark (X) this box if you attach a continuation sheet.

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PART B RAW MATERIAL IN THE FORM OF A MIXTURE

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3.04 If you obtain the listed substance in the form of a mixture, list the trade name(s) of the mixture, the name of its supplier(s) or manufacturer(s), an estimate of the average percent composition by weight of the listed substance in the mixture, and the amount of mixture processed during the reporting year.

CBI

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<u>Trade Name</u>	<u>Supplier or Manufacturer</u>	<u>Average % Composition by Weight (specify <math>\pm</math> % precision)</u>	<u>Amount Processed (kg/yr)</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

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☐ Mark (X) this box if you attach a continuation sheet.

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PART C RAW MATERIAL VOLUME

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3.05 State the quantity of the listed substance used as a raw material during the reporting year in the form of a class I chemical, class II chemical, or polymer, and the percent composition, by weight, of the listed substance.

☐

	Quantity Used (kg/yr)	% Composition by Weight of Listed Sub- stance in Raw Material (specify $\pm$ % precision)
Class I chemical	<u>126494</u>	<u>25 %</u>
	<u>                    </u>	<u>                    </u>
	<u>                    </u>	<u>                    </u>
Class II chemical	<u>50597</u>	<u>10 %</u>
	<u>                    </u>	<u>                    </u>
	<u>                    </u>	<u>                    </u>
Polymer	<u>126494</u>	<u>25 %</u>
	<u>                    </u>	<u>                    </u>
	<u>                    </u>	<u>                    </u>

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☐ Mark (X) this box if you attach a continuation sheet.

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SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

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General Instructions:

If you are reporting on a mixture as defined in the glossary, reply to questions in Section 4 that are inappropriate to mixtures by stating "NA -- mixture."

For questions 4.06-4.15, if you possess any hazard warning statement, label, MSDS, or other notice that addresses the information requested, you may submit a copy or reasonable facsimile in lieu of answering those questions which it addresses.

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PART A PHYSICAL/CHEMICAL DATA SUMMARY

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- 4.01 Specify the percent purity for the three major<sup>1</sup> technical grade(s) of the listed substance as it is manufactured, imported, or processed. Measure the purity of the substance in the final product form for manufacturing activities, at the time you import the substance, or at the point you begin to process the substance.

CBI

☐

	<u>Manufacture</u>	<u>Import</u>	<u>Process</u>
Technical grade #1	<u>NA</u> % purity	<u>NA</u> % purity	<u>NA</u> % purity
Technical grade #2	<u>NA</u> % purity	<u>NA</u> % purity	<u>NA</u> % purity
Technical grade #3	<u>NA</u> % purity	<u>NA</u> % purity	<u>NA</u> % purity

---

<sup>1</sup>Major = Greatest quantity of listed substance manufactured, imported or processed.

---

- 4.02 Submit your most recently updated Material Safety Data Sheet (MSDS) for the listed substance, and for every formulation containing the listed substance. If you possess an MSDS that you developed and an MSDS developed by a different source, submit your version. Indicate whether at least one MSDS has been submitted by circling the appropriate response.

Yes ..... ①

No ..... 2

Indicate whether the MSDS was developed by your company or by a different source.

Your company ..... 1

Another source ..... ②

---

☐ Mark (X) this box if you attach a continuation sheet.

---



4.03 Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.

Yes ..... 1

No ..... 2

4.04 For each activity that uses the listed substance, circle all the applicable number(s) corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the final state of the product.

CBI

[ ]

Activity	Physical State				
	Solid	Slurry	Liquid	Liquified Gas	Gas
Manufacture	1	2	3	4	5
Import	1	2	3	4	5
Process	1	2	3	4	5
Store	1	2	3	4	5
Dispose	1	2	3	4	5
Transport	1	2	3	4	5

[ ] Mark (X) this box if you attach a continuation sheet.

4.05 Particle Size -- If the listed substance exists in particulate form during any of the following activities, indicate for each applicable physical state the size and the percentage distribution of the listed substance by activity. Do not include particles  $\geq 10$  microns in diameter. Measure the physical state and particle sizes for importing and processing activities at the time you import or begin to process the listed substance. Measure the physical state and particle sizes for manufacturing storage, disposal and transport activities using the final state of the product.

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☐

<u>Physical State</u>		<u>Manufacture</u>	<u>Import</u>	<u>Process</u>	<u>Store</u>	<u>Dispose</u>	<u>Transport</u>
Dust	<1 micron	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	1 to <5 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	5 to <10 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Powder	<1 micron	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	1 to <5 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	5 to <10 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Fiber	<1 micron	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	1 to <5 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	5 to <10 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Aerosol	<1 micron	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	1 to <5 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
	5 to <10 microns	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

---

PART B FIRE, EXPLOSION, AND OTHER HAZARD DATA

---

- 4.06 For each physical state of the listed substance, specify the corresponding flashpoint, and the test method used to derive the flashpoint value.

Solid

Flashpoint ..... NA °C

Test method ..... NA

Liquid

Flashpoint ..... NA °C

Test method ..... NA

Gas/Vapor

Flashpoint ..... NA °C

Test method ..... NA

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

- 
- 4.07 Indicate the temperature at which the listed substance undergoes autopolymerization or autodecomposition.

Autopolymerizes at ..... NA °C

Autodecomposes at ..... NA °C

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

---

☐ Mark (X) this box if you attach a continuation sheet.

---

---

4.08 Indicate the flammable limits in air (% by volume) for the listed substance at standard temperature and pressure.

Lower limit ..... NA %  
Upper limit ..... NA %

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1  
No ..... NA ..... 2

---

☐ Mark (X) this box if you attach a continuation sheet.

---

4.09 Extinguishing Media -- Identify (Y/N/NA/UK) all known methods for extinguishing flames caused by each product type which contains the listed substance. (Refer to the instructions for the definition of Y, N, NA and UK.)

Extinguishing Media	Product Types Containing the Listed Substance <sup>1</sup>					
	1	2	3	4	5	6
Water	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Foam	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
CO <sub>2</sub>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Dry chemical (e.g., sodium bicarbonate)	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Halogenated hydrocarbon (e.g., carbon tetrachloride, methyl bromide)	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Other (specify) _____	_____	_____	_____	_____	_____	_____

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Identify the product types listed under each column (1-6) in the following table:

Product Type No.	Product Type Identity
1	<u>NA</u>
2	<u>NA</u>
3	<u>NA</u>
4	<u>NA</u>
5	<u>NA</u>
6	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

4.10 Special Firefighting Procedures -- Identify (Y/N/NA/UK) all known restrictions on firefighting procedures used to combat fires caused by each product type which contains the listed substance. (Refer to the instructions for definitions of Y, N, NA and UK.)

<u>Special Firefighting Procedures</u>	<u>Product Types Containing the Listed Substance<sup>1</sup></u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Do not use water	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Do not increase air pressure	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Other (specify) _____	_____	_____	_____	_____	_____	_____

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1  
 No ..... NA ..... 2

<sup>1</sup>Identify the product types listed under each column (1-6) in the following table:

<u>Product Type No.</u>	<u>Product Type Identity</u>
1	<u>NA</u>
2	<u>NA</u>
3	<u>NA</u>
4	<u>NA</u>
5	<u>NA</u>
6	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

- 4.11 Incompatibility -- List all chemicals, materials, or categories of chemicals or materials that you know are incompatible with the listed substance and the reason why they are incompatible. (Refer to the instructions for further explanation and an example.)

<u>CAS No.</u>	<u>Name</u>	<u>Reaction (specify)</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes .... NA ..... 1  
No ..... NA ..... 2

- 4.12 Autoxidation -- Is the listed substance capable of autoxidation? Circle the appropriate response.

Yes .... NA ..... 1  
No ..... NA ..... 2  
Unknown ..... NA ..... 3

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes .... NA ..... 1  
No ..... NA ..... 2

☐ Mark (X) this box if you attach a continuation sheet.

4.13 Indicate the autoignition temperature for the listed substance and the test method used to derive this value.

Autoignition temperature ..... NA °C

Test method ..... NA

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

4.14 Vapor in Cargo Tanks -- If storing the listed substance in a cargo tank causes vapor problems, such as peroxide formation, reaction with moisture, etc., specify the problem and necessary controls or restrictions used to remedy each problem.

<u>Vapor Problem</u>	<u>Controls/Restrictions</u>
Peroxide formation	<u>NA</u>
Reaction with moisture	<u>NA</u>
Combustion	<u>NA</u>
Other (specify)	
_____	_____
_____	_____

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

☐ Mark (X) this box if you attach a continuation sheet.



4.15 Shipment Procedures -- If you use an inhibitor or stabilizer when shipping the listed substance in bulk form, specify its name, whether it inhibits or stabilizes the listed substance, the amount normally added, and the duration of its effectiveness.

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<u>Name of Additive</u>	<u>Inhibitor or Stabilizer<sup>1</sup></u>	<u>Amount Normally Added (ppm or %)</u>	<u>Duration of Effectiveness (specify units)</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes .... NA ..... 1  
 No ..... NA ..... 2

<sup>1</sup>Use the following codes to designate inhibitor and stabilizer:

I = Inhibitor  
 S = Stabilizer

☐ Mark (X) this box if you attach a continuation sheet.

---

SECTION 5 ENVIRONMENTAL FATE

---

PART A RATE CONSTANTS AND TRANSFORMATION PRODUCTS

---

5.01 Indicate the rate constants for the following transformation processes.

a. Photolysis:

Absorption spectrum coefficient (peak) .... UK (1/M cm) at UK nm  
Reaction quantum yield,  $\phi$  ..... UK at UK nm  
Direct photolysis rate constant,  $k_p$ , at ... UK 1/hr UK latitude

b. Oxidation constants at 25°C:

For  $^1O_2$  (singlet oxygen),  $k_{ox}$  ..... UK 1/M hr  
For  $RO_2$  (peroxy radical),  $k_{ox}$  ..... UK 1/M hr

c. Five-day biochemical oxygen demand,  $BOD_5$  ... UK mg/l

d. Biotransformation rate constant:

For bacterial transformation in water,  $k_b$ ... UK 1/hr  
Specify culture ..... UK

e. Hydrolysis rate constants:

For base-promoted process,  $k_B$  ..... UK 1/M hr  
For acid-promoted process,  $k_A$  ..... UK 1/M hr  
For neutral process,  $k_N$  ..... UK 1/hr

f. Chemical reduction rate (specify conditions) UK

g. Other (such as spontaneous degradation) ... UK

---

☐ Mark (X) this box if you attach a continuation sheet.

---

PART B PARTITION COEFFICIENTS

5.02 a. Specify the half-life of the listed substance in the following media.

<u>Media</u>	<u>Half-life (specify units)</u>
Groundwater	<u>UK</u>
Atmosphere	<u>UK</u>
Surface water	<u>UK</u>
Soil	<u>UK</u>

b. Identify the listed substance's known transformation products that have a half-life greater than 24 hours.

<u>CAS No.</u>	<u>Name</u>	<u>Half-life (specify units)</u>	<u>Media</u>
<u>UK</u>	<u>UK</u>	<u>UK</u>	in <u>UK</u>
<u>UK</u>	<u>UK</u>	<u>UK</u>	in <u>UK</u>
<u>UK</u>	<u>UK</u>	<u>UK</u>	in <u>UK</u>
<u>UK</u>	<u>UK</u>	<u>UK</u>	in <u>UK</u>

5.03 Specify the octanol-water partition coefficient,  $K_{ow}$  ... UK at 25°C  
 Method of calculation or determination ..... UK

5.04 Specify the soil-water partition coefficient,  $K_d$  ..... UK at 25°C  
 Soil type ..... UK

5.05 Specify the organic carbon-water partition coefficient,  $K_{oc}$  ..... UK at 25°C

5.06 Specify the Henry's Law Constant,  $H$  ..... UK atm-m<sup>3</sup>/mole

☐ Mark (X) this box if you attach a continuation sheet.

5.07 List the bioconcentration factor (BCF) of the listed substance, the species for which it was determined, and the type of test used in deriving the BCF.

<u>Bioconcentration Factor</u>	<u>Species</u>	<u>Test<sup>1</sup></u>
<u>UK</u>	<u>UK</u>	<u>UK</u>
<u>UK</u>	<u>UK</u>	<u>UK</u>
<u>UK</u>	<u>UK</u>	<u>UK</u>

<sup>1</sup>Use the following codes to designate the type of test:

F = Flowthrough  
S = Static

☐ Mark (X) this box if you attach a continuation sheet.

6.04 For each market listed below, state the quantity sold and the total sales value of the listed substance sold or transferred in bulk during the reporting year.

☐

<u>Market</u>	<u>Quantity Sold or Transferred (kg/yr)</u>	<u>Total Sales Value (\$/yr)</u>
Retail sales	<u>NA</u>	<u>NA</u>
Distribution -- Wholesalers	<u>NA</u>	<u>NA</u>
Distribution -- Retailers	<u>NA</u>	<u>NA</u>
Intra-company transfer	<u>NA</u>	<u>NA</u>
Repackagers	<u>NA</u>	<u>NA</u>
Mixture producers	<u>NA</u>	<u>NA</u>
Article producers	<u>NA</u>	<u>NA</u>
Other chemical manufacturers or processors	<u>NA</u>	<u>NA</u>
Exporters	<u>NA</u>	<u>NA</u>
Other (specify) _____	<u>NA</u>	<u>NA</u>

6.05 Substitutes -- List all known commercially feasible substitutes that you know exist for the listed substance and state the cost of each substitute. A commercially feasible substitute is one which is economically and technologically feasible to use in your current operation, and which results in a final product with comparable performance in its end uses.

CBI

☐

<u>Substitute</u>	<u>Cost (\$/kg)</u>
<u>U.K.</u>	<u>U.K.</u>
<u>U.K.</u>	<u>U.K.</u>
<u>U.K.</u>	<u>U.K.</u>

☐ Mark (X) this box if you attach a continuation sheet.

6.04 For each market listed below, state the quantity sold and the total sales value of the listed substance sold or transferred in bulk during the reporting year.

☐

<u>Market</u>	<u>Quantity Sold or Transferred (kg/yr)</u>	<u>Total Sales Value (\$/yr)</u>
Retail sales	<u>NA</u>	<u>NA</u>
Distribution -- Wholesalers	<u>NA</u>	<u>NA</u>
Distribution -- Retailers	<u>NA</u>	<u>NA</u>
Intra-company transfer	<u>NA</u>	<u>NA</u>
Repackagers	<u>NA</u>	<u>NA</u>
Mixture producers	<u>NA</u>	<u>NA</u>
Article producers	<u>NA</u>	<u>NA</u>
Other chemical manufacturers or processors	<u>NA</u>	<u>NA</u>
Exporters	<u>NA</u>	<u>NA</u>
Other (specify)	<u>NA</u>	<u>NA</u>

6.05 Substitutes -- List all known commercially feasible substitutes that you know exist for the listed substance and state the cost of each substitute. A commercially feasible substitute is one which is economically and technologically feasible to use in your current operation, and which results in a final product with comparable performance in its end uses.

CBI

☐

<u>Substitute</u>	<u>Cost (\$/kg)</u>
<u>U.K.</u>	<u>U.K.</u>
<u>U.K.</u>	<u>U.K.</u>
<u>U.K.</u>	<u>U.K.</u>

☐ Mark (X) this box if you attach a continuation sheet.

6.06 State your average total and variable costs of manufacturing, importing, and processing the listed substance during the reporting year. (For an explanation of these costs, refer to the instructions.)

CBI

☐

Average Total Costs

Manufacturing ..... NA \$/kg

Importing ..... NA \$/kg

Processing ..... NA \$/kg

Average Variable Costs

Manufacturing ..... NA \$/kg

Importing ..... NA \$/kg

Processing ..... NA \$/kg

6.07 State your average purchase price of the listed substance, if purchased as a raw material during the reporting year.

CBI

☐

Average purchase price ..... NA \$/kg

6.08 State your company's total sales and sales of the listed substance sold in bulk for the reporting year.

CBI

☐

Year ending .....      
Mo. Year

Company's total sales (\$) ..... NA

Sales of listed substance (\$) ..... NA

☐ Mark (X) this box if you attach a continuation sheet.

6.09 State your company's total sales and sales of the listed substance sold in bulk for  
CBI the corporate fiscal year preceding the reporting year. (Refer to the instructions  
for question 6.08 for the methodology used to answer this question.)

☐

Year ending .....      
Mo. Year

Company's total sales (\$) ..... NA

Sales of listed substance (\$) ..... NA

6.10 State your company's total sales and sales of the listed substance sold in bulk for  
CBI the 2 corporate fiscal years preceding the reporting year in descending order.  
(Refer to the instructions for question 6.08 for the methodology used to answer this  
question.)

☐

Year ending .....      
Mo. Year

Company's total sales (\$) ..... NA

Sales of listed substance (\$) ..... NA

Year ending .....      
Mo. Year

Company's total sales (\$) ..... NA

Sales of listed substance (\$) ..... NA

☐ Mark (X) this box if you attach a continuation sheet.



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SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

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General Instructions:

For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

---

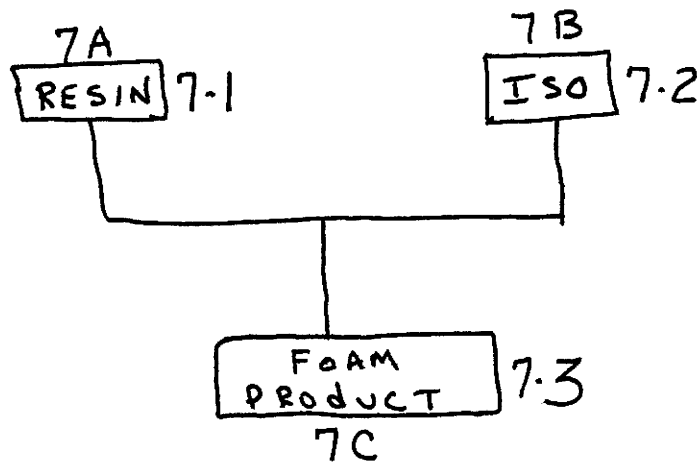
PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

---

7.01 In accordance with the instructions, provide a process block flow diagram showing the major (greatest volume) process type involving the listed substance.

CBI

☐ Process type ..... MECHANICAL MIXING



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☐ Mark (X) this box if you attach a continuation sheet.

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7.02 In accordance with the instructions, provide a separate process block flow diagram showing each of the three major (greatest volume) process types involving the listed substance.

CBI

☐ Process type ..... NA

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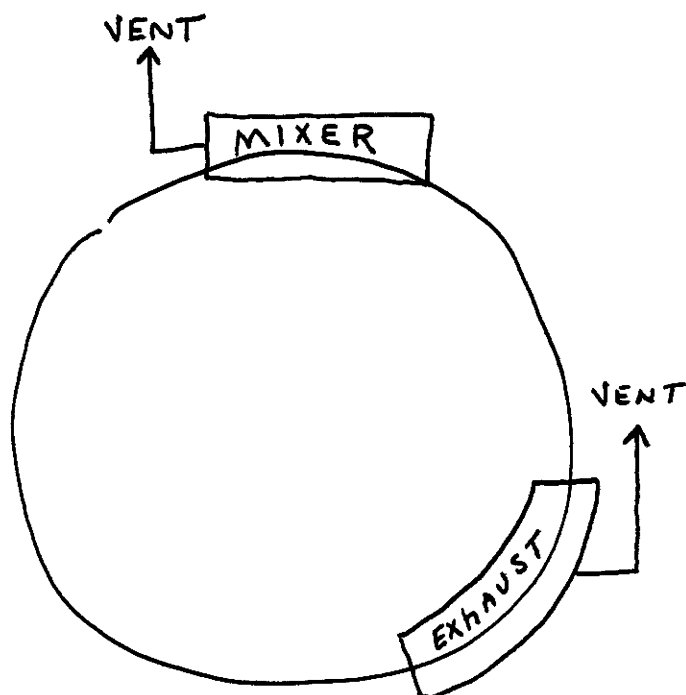
☐ Mark (X) this box if you attach a continuation sheet.

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7.03 In accordance with the instructions, provide a process block flow diagram showing all process emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.

CBI

☐ Process type ..... MECHANICAL MIXING



☐ Mark (X) this box if you attach a continuation sheet.

7.04 Describe the typical equipment types for each unit operation identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... MECHANICAL MIXING

Unit Operation ID Number	Typical Equipment Type	Operating Temperature Range (°C)	Operating Pressure Range (mm Hg)	Vessel Composition
<u>7-1</u>	<u>MECHANICAL MIXER</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>STEEL</u>
<u>7-2</u>	<u>MECHANICAL MIXER</u>	<u>AMBIENT</u>	<u>ATMOSPHERIC</u>	<u>STEEL</u>
<u>7-3</u>	<u>CASTING MOLD</u>	<u>AMBIENT</u>	<u>U.K.</u>	<u>ALUMINUM AND EPOXY</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... MECHANICAL MIXING

Process Stream ID Code	Process Stream Description	Physical State <sup>1</sup>	Stream Flow (kg/yr)
<u>7-A</u>	<u>MECHANICAL MIXER</u>	<u>OL</u>	<u>288408</u>
<u>7-B</u>	<u>MECHANICAL MIXER</u>	<u>OL</u>	<u>217570</u>
<u>7-C</u>	<u>CASTING MOLD</u>	<u>SO</u>	<u>505978</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>Use the following codes to designate the physical state for each process stream:

GC = Gas (condensable at ambient temperature and pressure)  
 GU = Gas (uncondensable at ambient temperature and pressure)  
 SO = Solid  
 SY = Sludge or slurry  
 AL = Aqueous liquid  
 OL = Organic liquid  
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

☐ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s).  
If a process block flow diagram is provided for more than one process type, photocopy  
this question and complete it separately for each process type. (Refer to the  
CBI instructions for further explanation and an example.)

☐ Process type ..... MECHANICAL MIXER

a.	b.	c.	d.	e.
Process Stream ID Code	Known Compounds <sup>1</sup>	Concen- trations <sup>2,3</sup> (% or ppm)	Other Expected Compounds	Estimated Concentrations (% or ppm)
<u>7 B</u>	<u>2-4 TOLUENE DIISOCYANATE</u>	<u>0.005</u>	<u>UK</u>	<u>UK</u>
<u>7 B</u>	<u>2-6 TOLUENE DIISOCYANATE</u>	<u>0.005</u>	<u>UK</u>	<u>UK</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

7.06 continued below

☐ Mark (X) this box if you attach a continuation sheet.

7.06 (continued)

<sup>1</sup>For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column b. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	Components of Additive Package	Concentrations (% or ppm)
1	POLYOL	95%
	CATALYSTS	2%
	WATER	2%
	SURFACTANT	1%
2	NA	NA
3		
4		
5		

<sup>2</sup>Use the following codes to designate how the concentration was determined:

A = Analytical result  
E = Engineering judgement/calculation

<sup>3</sup>Use the following codes to designate how the concentration was measured:

V = Volume  
W = Weight

☐ Mark (X) this box if you attach a continuation sheet.

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SECTION 8 RESIDUAL TREATMENT GENERATION, CHARACTERIZATION, TRANSPORTATION, AND  
MANAGEMENT

---

General Instructions:

For questions 8.04-8.06, provide a separate response for each residual treatment block flow diagram provided in question 8.01, 8.02 or 8.03. Identify the process type from which the information is extracted.

For questions 8.05-8.33, the Stream Identification Codes are those process streams listed in either the Section 7 or Section 8 block flow diagrams which contain residuals for each applicable waste management method.

For questions 8.07-8.33, if residuals are combined before they are handled, list those Stream Identification Codes on the same line.

Questions 8.09-8.33 refer to the waste management activities involving the residuals identified in either the Section 7 or Section 8 block flow diagrams. Not all Stream Identification Codes used in the sample answers (e.g., for the incinerator questions) have corresponding process streams identified in the block flow diagram(s). These Stream Identification codes are for illustrative purposes only.

For questions 8.11-8.33, if you have provided the information requested on one of the EPA Office of Solid Waste surveys listed below within the three years prior to your reporting year, you may submit a copy or reasonable facsimile in lieu of answering those questions which the survey addresses. The applicable surveys are: (1) Hazardous Waste Treatment, Storage, Disposal, and Recycling Survey; (2) Hazardous Waste Generator Survey; or (3) Subtitle D Industrial Facility Mail Survey.

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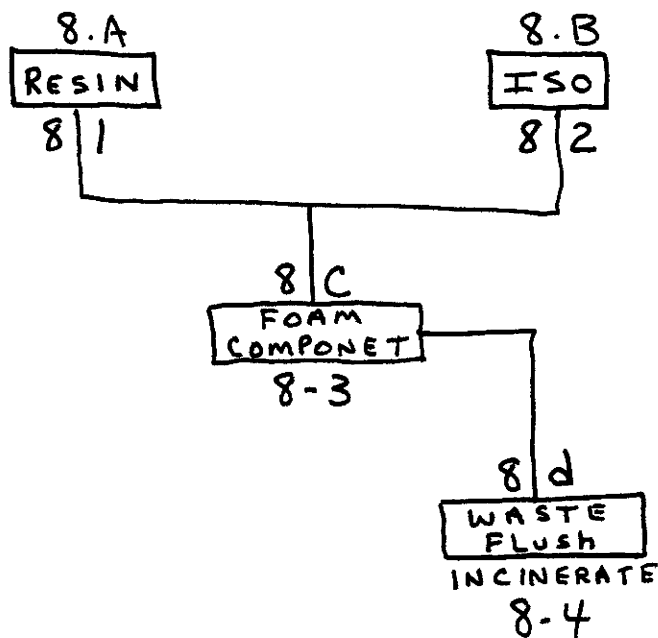
PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

---

8.01 In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01.

CBI

☐ Process type ..... MECHANICAL MIXING



---

☐ Mark (X) this box if you attach a continuation sheet.

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8.02 In accordance with the instructions, provide residual treatment block flow diagram(s) which describe each of the treatment processes used for residuals identified in question 7.02.

CBI

☐ Process type ..... NA

---

---

☐ Mark (X) this box if you attach a continuation sheet.

---

---

8.03 In accordance with the instructions, provide residual treatment block flow diagram(s) which describe each of the treatment processes used for residuals identified in question 7.03.

CBI

☐ Process type ..... NA

---

---

☐ Mark (X) this box if you attach a continuation sheet.

---

8.04 Describe the typical equipment types for each unit operation identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... NA

Unit Operation ID Number  
(as assigned in questions  
8.01, 8.02, or 8.03)

Typical Equipment Type

NA  
NA  
NA  
NA  
NA  
NA  
NA  
NA  
NA  
NA

NA  
NA  
NA  
NA  
NA  
NA  
NA  
NA  
NA  
NA

☐ Mark (X) this box if you attach a continuation sheet.

8.05 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

[ ] Process type ..... MECHANICAL MIXING

a.	b.	c.	d.	e.	f.	g.
Stream ID Code	Type of Hazardous Waste <sup>1</sup>	Physical State of Residual <sup>2</sup>	Known Compounds <sup>3</sup>	Concentrations (% or ppm) <sup>4,5,6</sup>	Other Expected Compounds	Estimated Concentrations (% or ppm)
8-B	T-H	OL	T.d.I.	0.005	UK	UK
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

---

8.05 (continued)

<sup>1</sup>Use the following codes to designate the type of hazardous waste:

I = Ignitable  
C = Corrosive  
R = Reactive  
E = EP toxic  
☒ T = Toxic  
☒ H = Acutely hazardous

<sup>2</sup>Use the following codes to designate the physical state of the residual:

GC = Gas (condensable at ambient temperature and pressure)  
GU = Gas (uncondensable at ambient temperature and pressure)  
SO = Solid  
SY = Sludge or slurry  
AL = Aqueous liquid  
☒ OL = Organic liquid  
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

---

8.05 continued below

---

☐ Mark (X) this box if you attach a continuation sheet.

---

8.05 (continued)

<sup>3</sup>For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column d. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

Additive Package Number	Components of Additive Package	Concentrations (% or ppm)
1	POLYOL	95 %
	CATALYSTS	2 %
	WATER	2 %
	SURFACTANT	1 %
2	NA	NA
3	NA	NA
4	NA	NA
5	NA	NA

<sup>4</sup>Use the following codes to designate how the concentration was determined:

- (A) = Analytical result  
E = Engineering judgement/calculation

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

<sup>5</sup>Use the following codes to designate how the concentration was measured:

(V) = Volume  
W = Weight

<sup>6</sup>Specify the analytical test methods used and their detection limits in the table below. Assign a code to each test method used and list those codes in column e.

<u>Code</u>	<u>Method</u>	<u>Detection Limit</u> ( $\pm$ ug/l)
<u>1</u>	<u>UK</u>	<u>UK</u>
<u>2</u>	<u>UK</u>	<u>UK</u>
<u>3</u>	<u>UK</u>	<u>UK</u>
<u>4</u>	<u>UK</u>	<u>UK</u>
<u>5</u>	<u>UK</u>	<u>UK</u>
<u>6</u>	<u>UK</u>	<u>UK</u>

☐ Mark (X) this box if you attach a continuation sheet.



8.06 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

☐ Process type ..... MECHANICAL MIXING

a.	b.	c.	d.	e.	f.	g.
Stream ID Code	Waste Description Code <sup>1</sup>	Management Method Code <sup>2</sup>	Residual Quantities (kg/yr)	Management of Residual (%) On-Site   Off-Site	Costs for Off-Site Management (per kg)	Changes in Management Methods
<u>8-B</u>	<u>A02</u>	<u>M6</u>	<u>800</u>	<u>98</u> <u>2</u>	<u>0.20</u>	<u>U.K.</u>
<u>SEND TO PRIVATE DISPOSAL FIRM</u>				<u>11</u>		
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u> <u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u> <u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u> <u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>Use the codes provided in Exhibit 8-1 to designate the waste descriptions

<sup>2</sup>Use the codes provided in Exhibit 8-2 to designate the management methods

☐ Mark (X) this box if you attach a continuation sheet.

**EXHIBIT 8-1.**  
(Refers to question 8.06(b))

**WASTE DESCRIPTION CODES**

These waste description codes were developed specifically for this survey to supplement the descriptions listed with the RCRA and other waste codes. (These waste description codes are not regulatory definitions.)

**WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA F, K, P, OR U WASTE CODE**

A01 Spent solvent (F001-F005, K086)	A06 Contaminated soil or cleanup residue	A10 Incinerator ash
A02 Other organic liquid (F001-F005, K086)	A07 Other F or K waste, exactly as described*	A11 Solidified treatment residue
A03 Still bottom (F001-F005, K086)	A08 Concentrated off-spec or discarded product	A12 Other treatment residue (specify in "Facility Notes")
A04 Other organic sludge (F001-F005, K086)	A09 Empty containers	A13 Other untreated waste (specify in "Facility Notes")
A05 Wastewater or aqueous mixture		

\*"Exactly as described" means that the waste matches the description of the RCRA waste code.

**INORGANIC LIQUIDS**—Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content.

- B01 Aqueous waste with low solvents
- B02 Aqueous waste with low other toxic organics
- B03 Spent acid with metals
- B04 Spent acid without metals
- B05 Acidic aqueous waste
- B06 Caustic solution with metals but no cyanides
- B07 Caustic solution with metals and cyanides
- B08 Caustic solution with cyanides but no metals
- B09 Spent caustic
- B10 Caustic aqueous waste
- B11 Aqueous waste with reactive sulfides
- B12 Aqueous waste with other reactives (e.g., explosives)
- B13 Other aqueous waste with high dissolved solids
- B14 Other aqueous waste with low dissolved solids
- B15 Scrubber water
- B16 Leachate
- B17 Waste liquid mercury
- B18 Other inorganic liquid (specify in "Facility Notes")

**INORGANIC SLUDGES**—Waste that is primarily inorganic, with moderate-to-high water content and low organic content; pumpable.

- B19 Lime sludge without metals
- B20 Lime sludge with metals/metal hydroxide sludge
- B21 Wastewater treatment sludge with toxic organics
- B22 Other wastewater treatment sludge
- B23 Untreated plating sludge without cyanides
- B24 Untreated plating sludge with cyanides
- B25 Other sludge with cyanides
- B26 Sludge with reactive sulfides
- B27 Sludge with other reactives
- B28 Degreasing sludge with metal scale or filings
- B29 Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
- B30 Sediment or lagoon dragout contaminated with organics
- B31 Sediment or lagoon dragout contaminated with inorganics only

- B32 Drilling mud
- B33 Asbestos slurry or sludge
- B34 Chloride or other brine sludge
- B35 Other inorganic sludge (specify in "Facility Notes")

**INORGANIC SOLIDS**—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable.

- B36 Soil contaminated with organics
- B37 Soil contaminated with inorganics only
- B38 Ash, slag, or other residue from incineration of wastes
- B39 Other "dry" ash, slag, or thermal residue
- B40 "Dry" lime or metal hydroxide solids chemically "fixed"
- B41 "Dry" lime or metal hydroxide solids not "fixed"
- B42 Metal scale, filings, or scrap
- B43 Empty or crushed metal drums or containers
- B44 Batteries or battery parts, casings, cores
- B45 Spent solid filters or adsorbents
- B46 Asbestos solids and debris
- B47 Metal-cyanide salts/chemicals
- B48 Reactive cyanide salts/chemicals
- B49 Reactive sulfide salts/chemicals
- B50 Other reactive salts/chemicals
- B51 Other metal salts/chemicals
- B52 Other waste inorganic chemicals
- B53 Lab packs of old chemicals only
- B54 Lab packs of debris only
- B55 Mixed lab packs
- B56 Other inorganic solids (specify in "Facility Notes")

**INORGANIC GASES**—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure.

- B57 Inorganic gases

**ORGANIC LIQUIDS**—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content.

- B58 Concentrated solvent-water solution
- B59 Halogenated (e.g., chlorinated) solvent
- B60 Nonhalogenated solvent

- B61 Halogenated/nonhalogenated solvent mixture
- B62 Oil-water emulsion or mixture
- B63 Waste oil
- B64 Concentrated aqueous solution of other organics
- B65 Concentrated phenolics
- B66 Organic paint, ink, lacquer, or varnish
- B67 Adhesives or epoxies
- B68 Paint thinner or petroleum distillates
- B69 Reactive or polymerizable organic liquid
- B70 Other organic liquid (specify in "Facility Notes")

**ORGANIC SLUDGES**—Waste that is primarily organic, with low-to-moderate inorganic solids content and water content; pumpable.

- B71 Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
- B72 Still bottoms of nonhalogenated solvents or other organic liquids
- B73 Oily sludge
- B74 Organic paint or ink sludge
- B75 Reactive or polymerizable organics
- B76 Resins, tars, or tarry sludge
- B77 Biological treatment sludge
- B78 Sewage or other untreated biological sludge
- B79 Other organic sludge (specify in "Facility Notes")

**ORGANIC SOLIDS**—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable.

- B80 Halogenated pesticide solid
- B81 Nonhalogenated pesticide solid
- B82 Solid resins or polymerized organics
- B83 Spent carbon
- B84 Reactive organic solid
- B85 Empty fiber or plastic containers
- B86 Lab packs of old chemicals only
- B87 Lab packs of debris only
- B88 Mixed lab packs
- B89 Other halogenated organic solid
- B90 Other nonhalogenated organic solid

**ORGANIC GASES**—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

- B91 Organic gases

EXHIBIT 8-2.  
(Refers to question 8.06(c))

MANAGEMENT METHODS

- M1 = Discharge to publicly owned wastewater treatment works  
M2 = Discharge to surface water under NPDES  
M3 = Discharge to off-site, privately owned wastewater treatment works  
M4 = Scrubber: a) caustic; b) water; c) other  
M5 = Vent to: a) atmosphere; b) flare; c) other (specify) \_\_\_\_\_  
M6 = Other (specify) \_\_\_\_\_

**TREATMENT AND RECYCLING**

**Incineration/thermal treatment**

- 1I Liquid injection  
2I Rotary or rocking kiln  
3I Rotary kiln with a liquid injection unit  
4I Two stage  
5I Fixed hearth  
6I Multiple hearth  
7I Fluidized bed  
8I Infrared  
9I Fume/vapor  
10I Pyrolytic destructor  
11I Other incineration/thermal treatment

**Reuse as fuel**

- 1RF Cement kiln  
2RF Aggregate kiln  
3RF Asphalt kiln  
4RF Other kiln  
5RF Blast furnace  
6RF Sulfur recovery furnace  
7RF Smelting, melting, or refining furnace  
8RF Coke oven  
9RF Other industrial furnace  
10RF Industrial boiler  
11RF Utility boiler  
12RF Process heater  
13RF Other reuse as fuel unit

**Fuel Blending**

- 1FB Fuel blending

**Solidification**

- 1S Cement or cement/silicate processes  
2S Pozzolanic processes  
3S Asphaltic processes  
4S Thermoplastic techniques  
5S Organic polymer techniques  
6S Jacketing (macro-encapsulation)  
7S Other solidification

**Recovery of solvents and liquid organics for reuse**

- 1SR Fractionation  
2SR Batch still distillation  
3SR Solvent extraction  
4SR Thin-film evaporation  
5SR Filtration  
6SR Phase separation  
7SR Dessication  
8SR Other solvent recovery

**Recovery of metals**

- 1MR Activated carbon (for metals recovery)  
2MR Electrodialysis (for metals recovery)  
3MR Electrolytic metal recovery  
4MR Ion exchange (for metals recovery)  
5MR Reverse osmosis (for metals recovery)  
6MR Solvent extraction (for metals recovery)  
7MR Ultrafiltration (for metals recovery)  
8MR Other metals recovery

**Wastewater Treatment**

After each wastewater treatment type listed below (1WT - 66WT) specify a) tank; or b) surface impoundment (i.e., 63WTa)

**Equalization**

- 1WT Equalization

**Cyanide oxidation**

- 2WT Alkaline chlorination  
3WT Ozone  
4WT Electrochemical  
5WT Other cyanide oxidation

**General oxidation (including disinfection)**

- 6WT Chlorination  
7WT Ozonation  
8WT UV radiation  
9WT Other general oxidation

**Chemical precipitation<sup>1</sup>**

- 10WT Lime  
11WT Sodium hydroxide  
12WT Soda ash  
13WT Sulfide  
14WT Other chemical precipitation

**Chromium reduction**

- 15WT Sodium bisulfite  
16WT Sulfur dioxide

EXHIBIT 8-2. (continued)

MANAGEMENT METHODS

17WT Ferrous sulfate	48WT Coalescing plate separation
18WT Other chromium reduction	49WT Other oil skimming
Complexed metals treatment (other than chemical precipitation by pH adjustment)	Other liquid phase separation
19WT Complexed metals treatment	50WT Decanting
	51WT Other liquid phase separation
Emulsion breaking	Biological treatment
20WT Thermal	52WT Activated sludge
21WT Chemical	53WT Fixed film-trickling filter
22WT Other emulsion breaking	54WT Fixed film-rotating contactor
	55WT Lagoon or basin, aerated
Adsorption	56WT Lagoon, facultative
23WT Carbon adsorption	57WT Anaerobic
24WT Ion exchange	58WT Other biological treatment
25WT Resin adsorption	
26WT Other adsorption	Other wastewater treatment
	59WT Wet air oxidation
Stripping	60WT Neutralization
27WT Air stripping	61WT Nitrification
28WT Steam stripping	62WT Denitrification
29WT Other stripping	63WT Flocculation and/or coagulation
	64WT Settling (clarification)
Evaporation	65WT Reverse osmosis
30WT Thermal	66WT Other wastewater treatment
31WT Solar	
32WT Vapor recompression	<b>OTHER WASTE TREATMENT</b>
33WT Other evaporation	1TR Other treatment
	2TR Other recovery for reuse
Filtration	<b>ACCUMULATION</b>
34WT Diatomaceous earth	1A Containers
35WT Sand	2A Tanks
36WT Multimedia	
37WT Other filtration	<b>STORAGE</b>
Sludge dewatering	1ST Container (i.e., barrel, drum)
38WT Gravity thickening	2ST Tank
39WT Vacuum filtration	3ST Waste pile
40WT Pressure filtration (belt, plate and frame, or leaf)	4ST Surface impoundment
41WT Centrifuge	5ST Other storage
42WT Other sludge dewatering	
Air flotation	<b>DISPOSAL</b>
43WT Dissolved air flotation	1D Landfill
44WT Partial aeration	2D Land treatment
45WT Air dispersion	3D Surface impoundment (to be closed as a landfill)
46WT Other air flotation	4D Underground injection well
Oil skimming	
47WT Gravity separation	

<sup>1</sup> Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

PART C TRANSPORTATION OF RESIDUALS TO OFF-SITE FACILITIES

8.07 Identify any special handling instructions for the residuals identified in your process block or residual treatment block flow diagram(s). (Refer to the instructions for an example.)

☐

Stream  
ID  
Code

Special Handling Instructions

NA

NA

8.08 Identify those construction materials that are recommended (compatible) for containing or transporting the listed substance, and those materials that you know could cause a dangerous reaction or significant corrosion (incompatible) if they are used to contain or transport the listed substance.

☐

Stream  
ID  
Code

Construction Materials

Compatible Containment Materials

Incompatible Containment Materials

NA

NA

NA

☐ Mark (X) this box if you attach a continuation sheet.



PART D ON-SITE RESIDUALS MANAGEMENT INFORMATION

8.10 Identification Permit Numbers -- List any applicable identification or permit numbers for your facility.

EPA National Pollutant Discharge Elimination System  
(NPDES) Permit No.(s) .....  
(discharges to surface water)

NA

EPA Underground Injection Well  
(UIC) Permit No.(s) .....  
(underground injection of fluids)

NA

EPA Point Source Discharge  
(PSD) Permit No.(s) .....  
(air emissions from point sources)

NA

EPA Hazardous Waste Management  
Facility Permit No.(s) .....

NA

Other EPA Permits (specify)

NA

☐ Mark (X) this box if you attach a continuation sheet.

8.11 On-Site Storage or Treatment in Piles -- Complete this table for the five largest (by volume) piles that are used on-site to store or treat the residuals identified in your process block or residual treatment block flow diagram(s).

☐

File	Quantity Managed per Year (cubic meters)	Under Roofed Structure (Y/N)	Type of Contain- ment Provided <sup>1</sup>	Synthetic Liner Base (Y/N) <sup>2</sup>	Frequency of Transfer and/or Handling Operations <sup>3</sup>	Stream ID Code
1	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA
3	NA	NA	NA	NA	NA	NA
4	NA	NA	NA	NA	NA	NA
5	NA	NA	NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Use the following codes to designate the type of containment provided:

C = Complete (includes both dike containment and underground (leachate) containment)

P1 = Partial-1 (includes just dike containment)

P2 = Partial-2 (includes just underground (leachate) containment)

N = None

<sup>2</sup>Waste may lie directly on the synthetic liner or the liner may be covered with a clay layer

<sup>3</sup>Use the following codes to designate frequency of transfer and/or handling operations:

A = Daily

B = Weekly

C = Monthly

D = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.



8.12 On-Site Storage or Treatment in Tanks -- Complete the following table for the five largest (by volume) tanks that are used on-site to store or treat the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Tank	Design Capacity (liters)	Quantity per Year (liters)	Treatment Types <sup>1</sup>	Average Length of Storage (days)	Part of Wastewater Treatment Train (Y/N) <sup>2</sup>	Tank Covered (Y/N)	Type of Containment Provided <sup>3</sup>	Stream ID Code
1	NA	NA	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA	NA	NA
3	NA	NA	NA	NA	NA	NA	NA	NA
4	NA	NA	NA	NA	NA	NA	NA	NA
5	NA	NA	NA	NA	NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes NA..... 1

No .....NA..... 2

<sup>1</sup>Indicate "S" for storage or use the codes provided in Exhibit 8-3 (which follows question 8.13) to designate treatment types

<sup>2</sup>Treatment train from which wastewater is discharged under a NPDES permit or through a sewer system to a publicly owned treatment works

<sup>3</sup>Use the following codes to designate the type of containment provided:

C = Complete (includes both dike containment and underground (leachate) containment)  
 P1 = Partial-1 (includes just dike containment)  
 P2 = Partial-2 (includes just underground (leachate) containment)  
 N = None

☐ Mark (X) this box if you attach a continuation sheet.

8.13 On-Site Storage, Treatment, or Disposal in Containers -- Complete the following table for the five largest (by volume) types of free standing containers that are used on-site to store, treat, or dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Container	Design Capacity (liters)	Quantity Stored per Year (liters)	Treatment Types <sup>1</sup>	Average Length of Storage (days)	Average Daily Stored Quantity (liters)	Maximum Operational Storage Capacity (liters)	Storage Base Material <sup>2</sup>	Stream ID Code
1	NA	NA	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA	NA	NA
3	NA	NA	NA	NA	NA	NA	NA	NA
4	NA	NA	NA	NA	NA	NA	NA	NA
5	NA	NA	NA	NA	NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Indicate "S" for storage and use the codes provided in Exhibit 8-3 to designate treatment types

If residual is stored, indicate (Y/N) in parenthesis whether the storage area is designed and operated to collect and contain surface runoff

<sup>2</sup>Use the following codes to designate storage base materials:

A = Concrete

B = Asphalt

C = Soil

D = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

**EXHIBIT 8-3**  
**[REFERS TO QUESTIONS 8.12, 8.13, AND 8.29]**

**WASTEWATER TREATMENT TYPES**

**WASTEWATER TREATMENT**

**Equalization**

1WT Equalization

**Cyanide oxidation**

2WT Alkaline chlorination

3WT Ozone

4WT Electrochemical

5WT Other cyanide oxidation

**General oxidation (including disinfection)**

6WT Chlorination

7WT Ozonation

8WT UV Radiation

9WT Other general oxidation

**Chemical Precipitation<sup>1</sup>**

10WT Lime

11WT Sodium hydroxide

12WT Soda ash

13WT Sulfide

14WT Other chemical precipitation

**Chromium reduction**

15WT Sodium bisulfite

16WT Sulfur dioxide

17WT Ferrous sulfate

18WT Other chromium reduction

**Complexed metals treatment (other than chemical precipitation by pH adjustment)**

19WT Complexed metals treatment

**Emulsion breaking**

20WT Thermal

21WT Chemical

22WT Other emulsion breaking

**Adsorption**

23WT Carbon adsorption

24WT Ion exchange

25WT Resin adsorption

26WT Other adsorption

**Stripping**

27WT Air stripping

28WT Steam stripping

29WT Other stripping

**Evaporation**

30WT Thermal

31WT Solar

32WT Vapor recompression

33WT Other evaporation

**Filtration**

34WT Diatomaceous earth

35WT Sand

36WT Multimedia

37WT Other filtration

**Sludge dewatering**

38WT Gravity thickening

39WT Vacuum filtration

40WT Pressure filtration (belt, plate and frame, or leaf)

41WT Centrifuge

42WT Other sludge dewatering

**Air flotation**

43WT Dissolved air flotation

44WT Partial aeration

45WT Air dispersion

46WT Other air flotation

**Oil skimming**

47WT Gravity separation

48WT Coalescing plate separation

49WT Other oil skimming

**Other liquid phase separation**

50WT Decanting

51WT Other liquid phase separation

**Biological treatment**

52WT Activated sludge

53WT Fixed film--trickling filter

54WT Fixed film--rotating contactor

55WT Lagoon or basin, aerated

56WT Lagoon, facultative

57WT Anaerobic

58WT Other biological treatment

**Other wastewater treatment**

59WT Wet air oxidation

60WT Neutralization

61WT Nitrification

62WT Denitrification

63WT Flocculation and/or coagulation

64WT Settling (clarification)

65WT Reverse osmosis

66WT Other wastewater treatment

<sup>1</sup>Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

8.14 On-Site Burning in Boilers -- Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your CBI process block or residual treatment block flow diagram(s).

☐

Boiler	Boiler Type <sup>1</sup>	Average Boiler Load <sup>2</sup> (%)	Average Fuel Replacement Ratio <sup>3</sup> (%)	Stream ID Code
1	NA	NA	NA	NA
2	NA	NA	NA	NA
3	NA	NA	NA	NA
4	NA	NA	NA	NA
5	NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Use the following codes to designate boiler type:

F = Fire tube  
W = Water tube

<sup>2</sup>Designate the average boiler load when firing residual (percent of capacity)

<sup>3</sup>Designate the average fuel replacement ratio as a percentage (heat-input basis)

☐ Mark (X) this box if you attach a continuation sheet.

8.15 Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment CBI block flow diagram(s).

☐

Boiler	Boiler Heat Capacity (heat input in kJ/hr)	Primary Boiler Fuel <sup>1</sup>
1	NA	NA
2	NA	NA
3	NA	NA
4	NA	NA
5	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ... NA ..... 2

<sup>1</sup>Use the following codes to designate the primary boiler fuel:

A = Oil  
B = Gas  
C = Coal

D = Wood  
E = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

8.16 Provide the following information for the residuals identified in your process block or residual treatment block flow diagram(s) that are burned in on-site boilers. Photocopy this question and complete it separately for each boiler.

CBI

☐ Boiler number ..... NA  
Stream ID code(s) ..... NA

	Residual, as Fired (or residual mixture if residuals are blended)	Boiler Fuel, as Fired (residual(s) plus primary fuel)
Btu content (J/kg)		
Average	<u>NA</u>	<u>NA</u>
Minimum	<u>NA</u>	<u>NA</u>
Total halogen content (% by wt.)		
Average	<u>NA</u>	<u>NA</u>
Maximum	<u>NA</u>	<u>NA</u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes .... NA ..... 1  
No ..... NA ..... 2

☐ Mark (X) this box if you attach a continuation sheet.

8.17 Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Boiler	Stream ID Code	Listed Metal <sup>1</sup>	Total Metal Content (% by weight)	
			Avg.	Max.
<u>1</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>2</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>3</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>4</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>5</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No .... NA ..... 2

<sup>1</sup>A listed metal is either an EP toxic metal or a metal that is included on the California List (as defined in section 3004(d)(2) of the Resource Conservation and Recovery Act)

☐ Mark (X) this box if you attach a continuation sheet.

8.18 Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Boiler	Air Pollution Control Device <sup>1</sup>	Types of Emissions Data Available
1	NA	NA
2	NA	NA
3	NA	NA
4	NA	NA
5	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1  
 No ..... NA ..... 2

<sup>1</sup>Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)  
 E = Electrostatic precipitator  
 O = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.



8.19 Stack Parameters -- Provide the following information for each of the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each boiler.

CBI

☐ Boiler number ..... NA

Stack height ..... NA m

Stack inner diameter (at outlet) ..... NA m

Exhaust temperature ..... NA °C

Vertical or horizontal stack ..... NA (V or H)

Annual emissions for the listed substance ..... NA kg/yr

Height of attached or adjacent building ..... NA m

Width of attached or adjacent building ..... NA m

Building cross-sectional area ..... NA m<sup>2</sup>

Emission exit velocity ..... NA m/sec

Average emission rate of exit stream ..... NA kg/min

Maximum emission rate of exit stream ..... NA kg/min

Average duration of maximum emission rate of exit stream . NA min

Frequency of maximum emission rate of exit stream ..... NA times/year

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes .... NA ..... 1

No ..... NA ..... 2

☐ Mark (X) this box if you attach a continuation sheet.

8.20 On-Site Burning in Incinerators -- Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

[ ]

Incinerator	Incinerator Type <sup>1</sup>	Primary Incinerator Fuel <sup>2</sup>	Average Fuel Replacement Ratio <sup>3</sup>	Stream ID Code
1	NA	NA	NA	NA
2	NA	NA	NA	NA
3	NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Use the following codes to designate the incinerator type:

1I = Liquid injection  
2I = Rotary or rocking kiln  
3I = Rotary kiln with a liquid injection unit  
4I = Two stage  
5I = Fixed hearth

6I = Multiple hearth  
7I = Fluidized bed  
8I = Infrared  
9I = Fume/vapor  
10I = Pyrolytic destructor  
11I = Other (specify) \_\_\_\_\_

<sup>2</sup>Use the following codes to designate the primary incinerator fuel:

A = Oil  
B = Gas  
C = Coal

D = Wood  
E = Other (specify) \_\_\_\_\_

<sup>3</sup>Designate the percentage of auxiliary fuel used when firing residual (percent of capacity)

[ ] Mark (X) this box if you attach a continuation sheet.

8.21 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual CBI treatment block flow diagram(s).

☐

<u>Incinerator</u>	<u>Incinerator Heat Capacity (heat input in kJ/hr)</u>	<u>Feed Type<sup>1</sup></u>
<u>1</u>	<u>NA</u>	<u>NA</u>
<u>2</u>	<u>NA</u>	<u>NA</u>
<u>3</u>	<u>NA</u>	<u>NA</u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1  
 No ..... NA ..... 2

<sup>1</sup>Use the following codes to designate feed type:

- A = Liquid nozzle type (specify) \_\_\_\_\_
- B = Atomizing pressure (specify) \_\_\_\_\_
- C = Solid-batch charge \_\_\_\_\_
- D = Solid-continuous charge \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

8.22 Describe the combustion chamber design parameters for each of the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Incinerator	Combustion Chamber Temperature (°C)		Location of Temperature Monitor		Residence Time In Combustion Chamber (seconds)	
	Primary	Secondary	Primary	Secondary	Primary	Secondary
1	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA
3	NA	NA	NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

8.23 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Incinerator	Air Pollution Control Device <sup>1</sup>	Types of Emissions Data Available
1	NA	NA
2	NA	NA
3	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... 1

No ..... 2

<sup>1</sup>Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)

E = Electrostatic precipitator

O = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

8.24 Stack Parameters -- Provide the following information on stack parameters for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI Photocopy this question and complete it separately for each incinerator.

☐ Incinerator number ..... NA

Stack height ..... NA m

Stack inner diameter (at outlet) ..... NA m

Exhaust temperature ..... NA °C

Vertical or horizontal stack ..... NA (V or H)

Annual emissions for the listed substance ..... NA kg/yr

Height of attached or adjacent building ..... NA m

Width of attached or adjacent building ..... NA m

Building cross-sectional area ..... NA m<sup>2</sup>

Emission exit velocity ..... NA m/sec

Average emission rate of exit stream ..... NA kg/min

Maximum emission rate of exit stream ..... NA kg/min

Average duration of maximum emission rate of exit stream . NA min

Frequency of maximum emission rate of exit stream ..... NA times/year

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No .... NA ..... 2

☐ Mark (X) this box if you attach a continuation sheet.

8.25 Provide the following information on the incinerator feed for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each incinerator.

CBI

☐ Incinerator number ..... NA

Stream ID code(s) ..... NA

	<u>Residual, as Fired (or residual mixture if residuals are blended)</u>	<u>Incinerator Fuel, as Fired (residual(s) plus primary fuel)</u>
Btu content (J/kg)		
Average	<u>NA</u>	<u>NA</u>
Minimum	<u>NA</u>	<u>NA</u>
Feed rate (kg/hr)	<u>NA</u>	<u>NA</u>
Feed rate (J/hr)(kg/hr x J/kg)	<u>NA</u>	<u>NA</u>
Total halogen content (% by weight)		
Average	<u>NA</u>	<u>NA</u>
Maximum	<u>NA</u>	<u>NA</u>
Total ash content (% by weight)		
Average	<u>NA</u>	<u>NA</u>
Maximum	<u>NA</u>	<u>NA</u>
Total water content (% by weight)		
Average	<u>NA</u>	<u>NA</u>
Maximum	<u>NA</u>	<u>NA</u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

☐ Mark (X) this box if you attach a continuation sheet.

8.26 Provide the following information on the incinerator feed for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your CBI process block or residual treatment block flow diagram(s).

☐

Incinerator	Stream ID Code	Listed Metal <sup>1</sup>	Total Metal Content (% by weight)	
			Avg.	Max.
<u>1</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>2</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>3</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ...NA..... 1

No .....NA..... 2

<sup>1</sup>A listed metal is either an EP toxic metal or a metal that is included on the California List (as defined in section 3004(d)(2) of the Resource Conservation and Recovery Act)

☐ Mark (X) this box if you attach a continuation sheet.

8.27 On-Site Storage, Treatment or Disposal in a Land Treatment Site -- Complete the following table for each on-site land treatment site that is used to store, treat, or dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐ Total area actively used for land treatment ..... NA m<sup>2</sup>  
Average slope of site (degree incline) ..... NA  
Surface water runoff management<sup>1</sup> ..... NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Use the following codes to describe the management practices for surface water runoff:

A = Collection prior to treatment  
B = Reapplication to the site

C = Canalization prior to treatment  
D = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.



8.28 Complete the following table for the residuals identified in your process block or residual treatment block flow diagram(s) that are managed in an on-site land treatment operation.

CBI

☐

Stream ID Code	Year Land Treatment Initiated	Methods Used to Apply Residuals <sup>1</sup>	Application Rate <sup>2</sup>
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes .. NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Use the following codes to describe the method(s) used to apply residuals to the land treatment site:

- A = Surface spreading or spray irrigation without plow or disc incorporation
- B = Surface spreading or spray irrigation with plow or disc incorporation to a depth of \_\_\_\_\_ cm
- C = Subsurface injection to a depth of \_\_\_\_\_ cm
- D = Other (specify) \_\_\_\_\_

<sup>2</sup>Use the following codes to designate the application rate:

- A = Daily
- B = Weekly
- C = Monthly
- D = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

8.29 On-Site Storage, Treatment, or Disposal in Surface Impoundments -- Complete the following table for the five largest (by volume) surface impoundments that are used on-site to treat, store, or dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Impoundment	Total Capacity (liters)	Specify Storage, Disposal or Treatment Type if Applicable <sup>1</sup>	Average Residency Time (days) <sup>2</sup>	SYNTHETIC LINER		CLAY LINER		LEACHATE COLLECTION SYSTEM		Stream ID Code
				No. of Liners	Thickness (cm) <sup>3</sup>	No. of Liners	Thickness (cm) <sup>3</sup>	Installed (Y/N)	Leachate Collected (Y/N)	
1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Indicate "S" for storage, "D" for disposal, or use the codes provided in Exhibit 8-3 (which follows question 8.13) to designate treatment type

<sup>2</sup>Indicate the residency time for the surface impoundment's flow through stream. In addition, indicate in parenthesis using the following codes the frequency with which the impoundment is dredged to clear the residue that collects on the bottom:

A = Daily  
B = Weekly

C = Monthly  
D = Other (specify) \_\_\_\_\_

<sup>3</sup>Indicate the thickness of each liner

☐ Mark (X) this box if you attach a continuation sheet.

8.30 On-Site Disposal in Landfill Cells -- Complete the following table for the five largest (by volume) landfill cells that are used on-site to dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

[ ]

Landfill Cell	Quantity per year (kg)	DRAINAGE LAYER		CLAY LINER		SYNTHETIC LINER			Stream ID Code
		Installed (Y/N)	Thickness (cm)	No. of Liners	Thickness (cm) <sup>1</sup>	No. of Liners	Material	Thickness (cm) <sup>1</sup>	
1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA	NA	NA	NA	NA
3	NA	NA	NA	NA	NA	NA	NA	NA	NA
4	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ..... NA ..... 2

<sup>1</sup>Indicate the thickness of each liner

[ ] Mark (X) this box if you attach a continuation sheet.

8.31 State the total area actively used on-site for your landfill.

CBI

☐ Total area actively used ..... NA m<sup>2</sup>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ..... NA ..... 2

8.32 Complete the following table for the five largest landfill cells (by volume) that contain residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

Landfill Cell	WORKING COVER		CAP DESIGN CLAY LAYER		LEACHATE COLLECTION SYSTEM	
	Average <sup>1</sup> Use	Thickness (cm)	Installed (Y/N)	Thickness (cm)	Installed (Y/N)	Leachate Collected (Y/N)
1	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
2	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
3	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
4	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
5	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ... NA ..... 1

No ..... NA ..... 2

<sup>1</sup> Use the following codes to designate the average use rate:

A = Daily

B = Weekly

C = Monthly

D = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

8.33 On-Site Disposal in Injection Wells -- Complete the following table for the five largest (by volume) injection wells that are used on-site to dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

☐

Well	Well Type <sup>1</sup>	Quantity Disposed (liters) <sup>2</sup>	Stream ID Code
1	NA	NA	NA
2	NA	NA	NA
3	NA	NA	NA
4	NA	NA	NA
5	NA	NA	NA

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes ..... NA ..... 1  
 No ..... NA ..... 2

<sup>1</sup>Use the following codes to designate well type:

- A = Wells that dispose below deepest groundwater with <10,000 mg/l of total dissolved solids
- B = Wells that dispose into a formation containing groundwater with <10,000 mg/l of total dissolved solids
- C = Wells that dispose above all groundwater
- D = Other (specify) \_\_\_\_\_

<sup>2</sup>Indicate the quantity of listed substance disposed

☐ Mark (X) this box if you attach a continuation sheet.

---

## SECTION 9 WORKER EXPOSURE

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### General Instructions:

Questions 9.03-9.25 apply only to those processes and workers involved in manufacturing or processing the listed substance. Do not include workers involved in residual waste treatment unless they are involved in this treatment process on a regular basis (i.e., exclude maintenance workers, construction workers, etc.).

---

☐ Mark (X) this box if you attach a continuation sheet.

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PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

9.01 Mark (X) the appropriate column to indicate whether your company maintains records on the following data elements for hourly and salaried workers. Specify for each data element the year in which you began maintaining records and the number of years the records for that data element are maintained. (Refer to the instructions for further explanation and an example.)

CBI

☐

Data Element	Data are Maintained for:		Year in Which Data Collection Began	Number of Years Records Are Maintained
	Hourly Workers	Salaried Workers		
Date of hire	<u>X</u>	<u>X</u>	<u>1967</u>	<u>30</u>
Age at hire	<u>X</u>	<u>X</u>	<u>1968</u>	<u>30</u>
Work history of individual before employment at your facility	<u>X</u>	<u>X</u>	<u>1968</u>	<u>30</u>
Sex	<u>X</u>	<u>X</u>	<u>1968</u>	<u>30</u>
Race	<u>X</u>	<u>X</u>	<u>1968</u>	<u>30</u>
Job titles	<u>X</u>	<u>X</u>	<u>1968</u>	<u>30</u>
Start date for each job title	<u>X</u>	<u>X</u>	<u>1968</u>	<u>25</u>
End date for each job title	<u>X</u>	<u>X</u>	<u>1968</u>	<u>25</u>
Work area industrial hygiene monitoring data	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Personal employee monitoring data	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Employee medical history	<u>X</u>	<u>X</u>	<u>1976</u>	<u>30</u>
Employee smoking history	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Accident history	<u>X</u>	<u>X</u>	<u>1968</u>	<u>25</u>
Retirement date	<u>X</u>	<u>X</u>	<u>1982</u>	<u>20</u>
Termination date	<u>X</u>	<u>X</u>	<u>1968</u>	<u>30</u>
Vital status of retirees	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Cause of death data	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

9.02 In accordance with the instructions, complete the following table for each activity in which you engage.

CBI

☐

a.	b.	c.	d.	e.
<u>Activity</u>	<u>Process Category</u>	<u>Yearly Quantity (kg)</u>	<u>Total Workers</u>	<u>Total Worker-Hours</u>
Manufacture of the listed substance	Enclosed	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Controlled Release	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Open	<u>NA</u>	<u>NA</u>	<u>NA</u>
On-site use as reactant	Enclosed	<u>0</u>	<u>0</u>	<u>0</u>
	Controlled Release	<u>404 782</u>	<u>8</u>	<u>15200</u>
	Open	<u>505 978</u>	<u>1</u>	<u>1900</u>
On-site use as nonreactant	Enclosed	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Controlled Release	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Open	<u>NA</u>	<u>NA</u>	<u>NA</u>
On-site preparation of products	Enclosed	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Controlled Release	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Open	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.



9.03 Provide a descriptive job title for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance.

CBI

☐

Labor Category

Descriptive Job Title

A

EQUIPMENT OPERATOR

B

demolder

C

TRIMMER

D

ASSEMBLER

E

ASSEMBLER

F

ASSEMBLER

G

ASSEMBLER

H

ASSEMBLER

I

FOREMAN

J

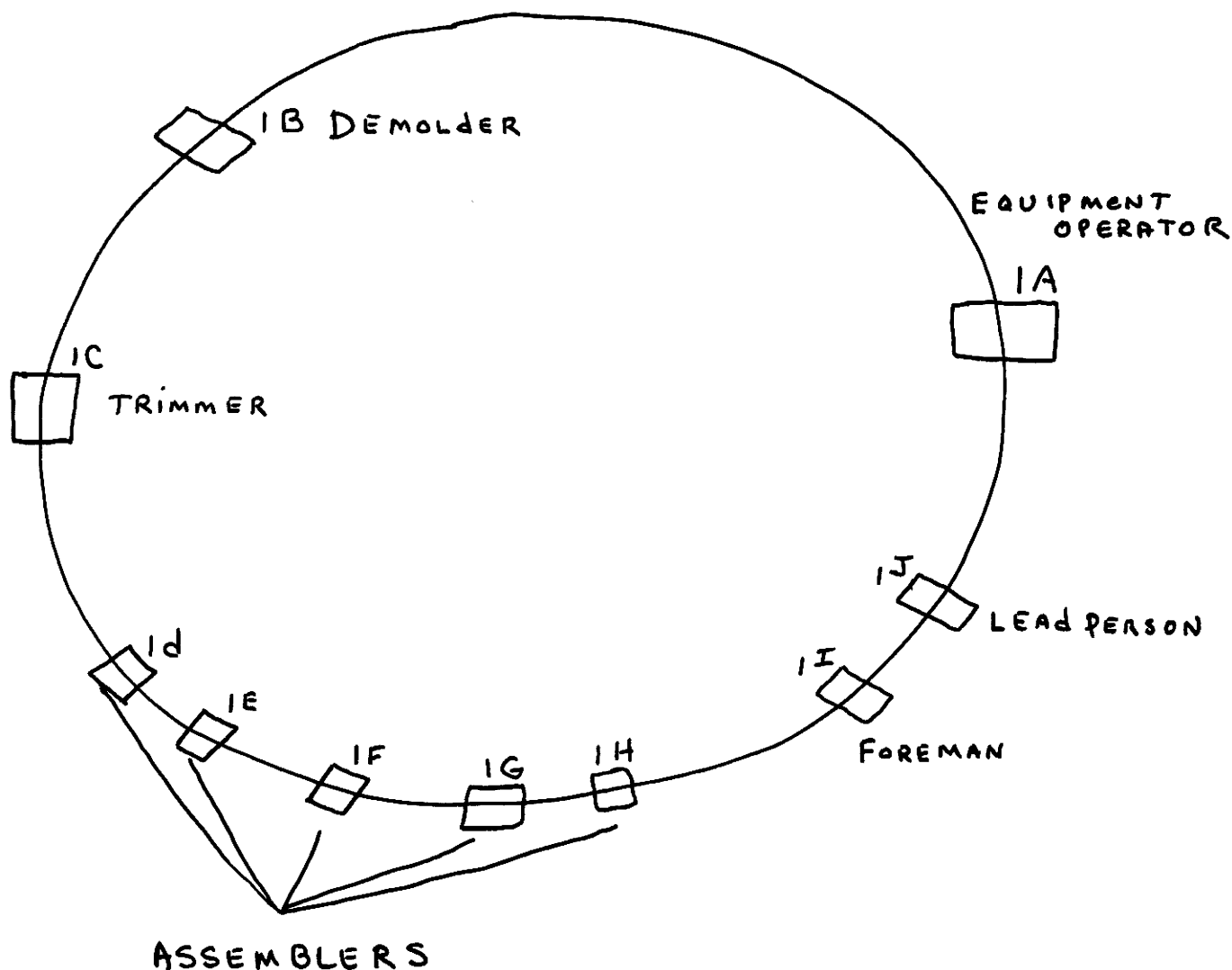
LEAD PERSON

☐ Mark (X) this box if you attach a continuation sheet.

9.04 In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.

CBI

☐ Process type ..... MECHANICAL MIXING



☐ Mark (X) this box if you attach a continuation sheet.

9.05 Describe the various work area(s) shown in question 9.04 that encompass workers who may potentially come in contact with or be exposed to the listed substance. Add any additional areas not shown in the process block flow diagram in question 7.01 or 7.02. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... MECHANICAL MIXING

Work Area ID

Description of Work Areas and Worker Activities

1	<u>SHOOTS CHEMICAL IN MOLD</u>
2	<u>PULLS FOAM SEAT BUNS FROM MOLD</u>
3	<u>CUTS EXCESS FOAM OFF SEAT BUN</u>
4	<u>COVERS SEAT FOAM WITH VINYL</u>
5	<u>COVERS SEAT FOAM WITH VINYL</u>
6	<u>COVERS SEAT FOAM WITH VINYL</u>
7	<u>COVERS SEAT FOAM WITH VINYL</u>
8	<u>COVERS SEAT FOAM WITH VINYL</u>
9	<u>IN AREA SUPERVISING</u>
10	<u>HELPING IN ALL AREAS</u>

☐ Mark (X) this box if you attach a continuation sheet.

9.06 Complete the following table for each work area identified in question 9.05, and for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance. Photocopy this question and complete it separately for each process type and work area.

☐ Process type .....

Work area .....

Labor Category	Number of Workers Exposed	Mode of Exposure (e.g., direct skin contact)	Physical State of Listed Substance <sup>1</sup>	Average Length of Exposure Per Day <sup>2</sup>	Number of Days per Year Exposed
A	1	INHALATION	OL	E	200
B	1	SKIN	SO	E	200
C	1	SKIN	SO	E	200
D	1	SKIN	SO	E	200
E	1	SKIN	SO	E	200
F	1	SKIN	SO	E	200
G	1	SKIN	SO	E	200
H	1	SKIN	SO	E	200
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

<sup>1</sup>Use the following codes to designate the physical state of the listed substance at the point of exposure:

GC = Gas (condensable at ambient temperature and pressure)  
 GU = Gas (uncondensable at ambient temperature and pressure; includes fumes, vapors, etc.)  
 SO = Solid

SY = Sludge or slurry  
 AL = Aqueous liquid  
 OL = Organic liquid  
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

<sup>2</sup>Use the following codes to designate average length of exposure per day:

A = 15 minutes or less  
 B = Greater than 15 minutes, but not exceeding 1 hour  
 C = Greater than one hour, but not exceeding 2 hours

D = Greater than 2 hours, but not exceeding 4 hours  
 E = Greater than 4 hours, but not exceeding 8 hours  
 F = Greater than 8 hours

☐ Mark (X) this box if you attach a continuation sheet.

9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type ..... MECHANICAL MIXING

Work area ..... 1

Labor Category	8-hour TWA Exposure Level (ppm, mg/m <sup>3</sup> , other-specify)	15-Minute Peak Exposure Level (ppm, mg/m <sup>3</sup> , other-specify)
<u>A</u>	<u>0.005</u>	<u>0.02</u>
<u>B</u>	<u>0.005</u>	<u>0.02</u>
<u>C</u>	<u>0.005</u>	<u>0.02</u>
<u>d</u>	<u>0.005</u>	<u>0.02</u>
<u>E</u>	<u>0.005</u>	<u>0.02</u>
<u>F</u>	<u>0.005</u>	<u>0.02</u>
<u>G</u>	<u>0.005</u>	<u>0.02</u>
<u>H</u>	<u>0.005</u>	<u>0.02</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

PART B WORK PLACE MONITORING PROGRAM

9.08 If you monitor worker exposure to the listed substance, complete the following table.

CBI

☐

Sample/Test	Work Area ID	Testing Frequency (per year)	Number of Samples (per test)	Who Samples <sup>1</sup>	Analyzed In-House (Y/N)	Number of Years Records Maintained
Personal breathing zone	NA	NA	NA	NA	NA	NA
General work area (air)	NA	NA	NA	NA	NA	NA
Wipe samples	NA	NA	NA	NA	NA	NA
Adhesive patches	NA	NA	NA	NA	NA	NA
Blood samples	NA	NA	NA	NA	NA	NA
Urine samples	NA	NA	NA	NA	NA	NA
Respiratory samples	NA	NA	NA	NA	NA	NA
Allergy tests	NA	NA	NA	NA	NA	NA
Other (specify)						
NA	NA	NA	NA	NA	NA	NA
Other (specify)						
NA	NA	NA	NA	NA	NA	NA
Other (specify)						
NA	NA	NA	NA	NA	NA	NA

<sup>1</sup>Use the following codes to designate who takes the monitoring samples:

A = Plant industrial hygienist

B = Insurance carrier

C = OSHA consultant

D = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

9.09 For each sample type identified in question 9.08, describe the type of sampling and analytical methodology used for each type of sample.

<input type="checkbox"/> Sample Type	Sampling and Analytical Methodology
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

9.10 If you conduct personal and/or ambient air monitoring for the listed substance, specify the following information for each equipment type used.

<input type="checkbox"/> Equipment Type <sup>1</sup>	Detection Limit <sup>2</sup>	Manufacturer	Averaging Time (hr)	Model Number
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA

<sup>1</sup>Use the following codes to designate personal air monitoring equipment types:

- A = Passive dosimeter
- B = Detector tube
- C = Charcoal filtration tube with pump
- D = Other (specify) NA

Use the following codes to designate ambient air monitoring equipment types:

- E = Stationary monitors located within work area
- F = Stationary monitors located within facility
- G = Stationary monitors located at plant boundary
- H = Mobile monitoring equipment (specify) NA
- I = Other (specify) NA

<sup>2</sup>Use the following codes to designate detection limit units:

- A = ppm
- B = Fibers/cubic centimeter (f/cc)
- C = Micrograms/cubic meter ( $\mu/m^3$ )

☐ Mark (X) this box if you attach a continuation sheet.

9.11 If you conduct routine medical tests for monitoring the health effects of exposure to the listed substance, specify the type and frequency of the tests.

CBI

☐

Test Description

Frequency  
(weekly, monthly, yearly, etc.)

\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K

\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K  
\_\_\_\_\_  
U K

☐ Mark (X) this box if you attach a continuation sheet.



PART C ENGINEERING CONTROLS

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type ..... MECHANICAL MIXING

Work area ..... 1

<u>Engineering Controls</u>	<u>Used (Y/N)</u>	<u>Year Installed</u>	<u>Upgraded (Y/N)</u>	<u>Year Upgraded</u>
Ventilation:				
Local exhaust	<u>Y</u>	<u>1974</u>	<u>Y</u>	<u>1980</u>
General dilution	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Other (specify) _____	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Vessel emission controls	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Mechanical loading or packaging equipment	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Other (specify) <u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

9.13 Describe all equipment or process modifications you have made within the 3 years prior to the reporting year that have resulted in a reduction of worker exposure to the listed substance. For each equipment or process modification described, state the percentage reduction in exposure that resulted. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type ..... MECHANICAL MIXING

Work area .....

Equipment or Process Modification	Reduction in Worker Exposure Per Year (%)
<u>UK</u>	<u>UK</u>
<u>UK</u>	<u>UK</u>
<u>UK</u>	<u>UK</u>
<u>UK</u>	<u>UK</u>

☐ Mark (X) this box if you attach a continuation sheet.

9.14 Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

[ ] Process type ..... MECHANICAL MIXING

Work area ..... 1

<u>Equipment Types</u>	<u>Wear or Use (Y/N)</u>
Respirators	N
Safety goggles/glasses	Y
Face shields	Y
Coveralls	Y
Bib aprons	Y
Chemical-resistant gloves	Y
Other (specify)	
	NA
	NA

100

9.15 If workers use respirators when working with the listed substance, specify for each process type, the work areas where the respirators are used, the type of respirators used, the average usage, whether or not the respirators were fit tested, and the type and frequency of the fit tests. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... MECHANICAL MIXING

Work Area	Respirator Type	Average Usage <sup>1</sup>	Fit Tested (Y/N)	Type of Fit Test <sup>2</sup>	Frequency of Fit Tests (per year)
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>Use the following codes to designate average usage:

A = Daily  
 B = Weekly  
 C = Monthly  
 D = Once a year  
 E = Other (specify) \_\_\_\_\_

<sup>2</sup>Use the following codes to designate the type of fit test:

QL = Qualitative  
 QT = Quantitative

☐ Mark (X) this box if you attach a continuation sheet.

PART E WORK PRACTICES

- 9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI

☐

Process type ..... MECHANICAL MIXING

Work area ..... 1

ARE A MARKED WITH WARNING SIGN'S

FAN'S AND EXHAUST FAN'S PLACED AROUND AREA

- 9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type ..... MECHANICAL MIXING

Work area ..... 1

Housekeeping Tasks	Less Than Once Per Day	1-2 Times Per Day	3-4 Times Per Day	More Than 4 Times Per Day
Sweeping		X		
Vacuuming	X			
Water flushing of floors	X			
Other (specify)				

☐ Mark (X) this box if you attach a continuation sheet.

9.17 Respirator Training Program -- Describe your respirator training and re-training programs for each type of respirator used when working with the listed substance. Photocopy this question and complete it separately for each respirator type.

a.

Respirator type ..... NA

Type of Training <sup>1</sup>	Number of Workers Trained	Location of Training <sup>2</sup>	Length of Training (hrs)	Person Performing Training <sup>3</sup>	Frequency <sup>4</sup>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

b.

Respirator type ..... NA

Type of Re-training <sup>1</sup>	Number of Workers Re-trained	Location of Re-Training <sup>2</sup>	Length of Re-Training (hrs)	Person Performing Re-Training <sup>3</sup>	Frequency <sup>4</sup>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>Use the following codes to designate the type of training or re-training:

E = Emergency  
R = Routine

<sup>2</sup>Use the following codes to designate the location of training or re-training:

A = Outside plant instruction  
B = In-house classroom instruction  
C = On-the-job  
D = Other (specify) \_\_\_\_\_

<sup>3</sup>Use the following codes to designate the person who performs the training or re-training:

A = Plant industrial hygienist  
B = Supervisor  
C = Foreman  
D = Other (specify) \_\_\_\_\_

<sup>4</sup>Use the following codes to designate the frequency of respirator training or re-training:

A = Monthly  
B = Fixed monthly  
C = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

- 9.18 For each type of personal protective clothing and safety equipment used when working with the listed substance, indicate whether you have conducted a permeation test on the clothing or equipment for the listed substance.

<u>Clothing and Equipment</u>	<u>Permeation Tests Conducted</u> (Y/N)
Coveralls	<u>NA</u>
Bib apron	<u>NA</u>
Gloves	<u>NA</u>
Other (specify)	
<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

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PART E WORK PRACTICES

---

- 9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI



Process type ..... MECHANICAL MIXING

Work area ..... 1

ARE A MARKED WITH WARNING SIGN'S

FAN'S AND EXHAUST FAN'S PLACED AROUND AREA

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- 9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type ..... MECHANICAL MIXING

Work area ..... 1

<u>Housekeeping Tasks</u>	<u>Less Than Once Per Day</u>	<u>1-2 Times Per Day</u>	<u>3-4 Times Per Day</u>	<u>More Than 4 Times Per Day</u>
Sweeping		<u>X</u>		
Vacuuming	<u>X</u>			
Water flushing of floors	<u>X</u>			
Other (specify)				

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☐ Mark (X) this box if you attach a continuation sheet.

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9.21 Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?

Routine exposure

Yes ..... NA ..... 1

No ..... NA ..... 2

Emergency exposure

Yes ..... NA ..... 1

No ..... NA ..... 2

If yes, where are copies of the plan maintained?

Routine exposure: NA

Emergency exposure: NA

---

9.22 Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.

Yes ..... 1

No ..... 2

If yes, where are copies of the plan maintained? NA

Has this plan been coordinated with state or local government response organizations? Circle the appropriate response.

Yes ..... NA ..... 1

No ..... NA ..... 2

---

9.23 Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.

Plant safety specialist ..... NA ..... 1

Insurance carrier ..... NA ..... 2

OSHA consultant ..... NA ..... 3

Other (specify) NA ..... 4

---

☐ Mark (X) this box if you attach a continuation sheet.

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9.24 Who is responsible for safety and health training at your facility? Circle the appropriate response.

Plant safety specialist ..... NA ..... 1  
Insurance carrier ..... NA ..... 2  
OSHA consultant ..... NA ..... 3  
Other (specify) NA ..... 4

---

9.25 Who is responsible for the medical program at your facility? Circle the appropriate response.

Plant physician ..... NA ..... 1  
Consulting physician ..... NA ..... 2  
Plant nurse ..... NA ..... 3  
Consulting nurse ..... NA ..... 4  
Other (specify) NA ..... 5

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☐ Mark (X) this box if you attach a continuation sheet.

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SECTION 10 ENVIRONMENTAL RELEASE

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General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the release is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and, thus, does not have an RQ, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that are equal to or greater than the RQ. The facility may have answered these questions or similar questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RQ.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

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PART A GENERAL INFORMATION

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10.01 Where is your facility located? Circle all appropriate responses.

CBI

- ☐ Industrial area ..... 1
- Urban area ..... 2
- Residential area ..... 3
- Agricultural area ..... 4
- Rural area ..... 5
- Adjacent to a park or a recreational area ..... 6
- Within 1 mile of a navigable waterway ..... 7
- Within 1 mile of a school, university, hospital, or nursing home facility ..... 8
- Within 1 mile of a non-navigable waterway ..... 9
- Other (specify) \_\_\_\_\_ ..... 10

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☐ Mark (X) this box if you attach a continuation sheet.

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10.02 Specify the exact location of your facility (from central point where process unit is located) in terms of latitude and longitude or Universal Transverse Mercader (UTM) coordinates.

Latitude ..... 48 ° 51 ' 27 "

Longitude ..... 95 ° 41 ' 16 "

UTM coordinates ..... Zone UK , Northing UK , Easting UK

10.03 If you monitor meteorological conditions in the vicinity of your facility, provide the following information.

Average annual precipitation ..... NA inches/year

Predominant wind direction ..... NA

10.04 Indicate the depth to groundwater below your facility.

Depth to groundwater ..... NA meters

10.05 For each on-site activity listed, indicate (Y/N/NA) all routine releases of the listed substance to the environment. (Refer to the instructions for a definition of Y, N, and NA.)

CBI

<input type="checkbox"/>	On-Site Activity	Environmental Release		
		Air	Water	Land
	Manufacturing	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Importing	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Processing	<u>Y</u>	<u>N</u>	<u>N</u>
	Otherwise used	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Product or residual storage	<u>Y</u>	<u>N</u>	<u>N</u>
	Disposal	<u>NA</u>	<u>NA</u>	<u>NA</u>
	Transport	<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

10.06 Provide the following information for the listed substance and specify the level of precision for each item. (Refer to the instructions for further explanation and an example.)

CBI

☐ Quantity discharged to the air ..... UK kg/yr  $\pm$  UK %  
Quantity discharged in wastewaters ..... NA kg/yr  $\pm$  NA %  
Quantity managed as other waste in on-site  
treatment, storage, or disposal units ..... NA kg/yr  $\pm$  NA %  
Quantity managed as other waste in off-site  
treatment, storage, or disposal units ..... 10 000 kg/yr  $\pm$  2 %

☐ Mark (X) this box if you attach a continuation sheet.

10.07 Complete the following table for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type ..... NA

Process Stream ID Code	Media Affected <sup>1</sup>	Average Amount of Listed Substance Released <sup>2</sup>	Number of Batches/Year	Days of Operation/Year
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>Use the following codes to designate the media affected:

A = Air  
 B = Land  
 C = Groundwater  
 D = POTW  
 E = Navigable waterway  
 F = Non-navigable waterway  
 G = Other (specify) \_\_\_\_\_

<sup>2</sup>Specify the average amount of listed substance released to the environment and use the following codes to designate the units used to measure the release:

A = kg/day  
 B = kg/batch

☐ Mark (X) this box if you attach a continuation sheet.

10.08 Describe the control technologies used to minimize release of the listed substance for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... MECHANICAL MIXING

<u>Stream ID Code</u>	<u>Control Technology</u>	<u>Percent Efficiency</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>

☐ Mark (X) this box if you attach a continuation sheet.

PART B RELEASE TO AIR

- 10.09 Point Source Emissions -- Identify each emission point source containing the listed substance in terms of a Stream ID Code as identified in your process block or residual treatment block flow diagram(s), and provide a description of each point source. Do not include raw material and product storage vents, or fugitive emission sources (e.g., equipment leaks). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type .....

MECHANICAL MIXING

Point Source  
ID Code

Description of Emission Point Source

1 A

ROOF EXHAUST

1 B

WALL FAN EXHAUST

1 C

ROOF EXHAUST

1 d

STANDING FLOOR FAN

1 E

STANDING FLOOR FAN

1 F

STANDING FLOOR FAN

1 G

STANDING FLOOR FAN

1 H

STANDING FLOOR FAN

☐ Mark (X) this box if you attach a continuation sheet.



☐ Mark (X) this box if you attach a continuation sheet.

10.10 Emission Characteristics -- Characterize the emissions for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI

☐

Point Source ID Code	Physical State <sup>1</sup>	Average Emissions (kg/day)	Frequency <sup>2</sup> (days/yr)	Duration <sup>3</sup> (min/day)	Average Emission Factor <sup>4</sup>	Maximum Emission Rate (kg/min)	Maximum Emission Rate Frequency (events/yr)	Maximum Emission Rate Duration (min/event)
1A	V	UK	200	480	0.005	UK	CONTINUOUS	CONTINUOUS
1B	V	UK	200	480	UK	UK	UK	UK
1C	V	UK	200	480	UK	UK	UK	UK
1d	V	UK	200	480	UK	UK	UK	UK
1E	V	UK	200	480	UK	UK	UK	UK
1F	V	UK	200	480	UK	UK	UK	UK
1G	V	UK	200	480	UK	UK	UK	UK
1H	V	UK	200	480	UK	UK	UK	UK
NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup>Use the following codes to designate physical state at the point of release:

G = Gas; V = Vapor; P = Particulate; A = Aerosol; O = Other (specify) \_\_\_\_\_

<sup>2</sup>Frequency of emission at any level of emission

<sup>3</sup>Duration of emission at any level of emission

<sup>4</sup>Average Emission Factor -- Provide estimated ( $\pm$  25 percent) emission factor (kg of emission per kg of production of listed substance)

10.11 Stack Parameters -- Identify the stack parameters for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI

☐

Point Source ID Code	Stack Height(m)	Stack Inner Diameter (at outlet) (m)	Exhaust Temperature (°C)	Emission Exit Velocity (m/sec)	Building Height(m) <sup>1</sup>	Building Width(m) <sup>2</sup>	Vent Type <sup>3</sup>
1A	78.7	7.2	AMBIENT	6.4	45.9	264.2	✓
1C	52.4	6.5	AMBIENT	5.6	43.7	264.2	✓
NA	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup>Height of attached or adjacent building

<sup>2</sup>Width of attached or adjacent building

<sup>3</sup>Use the following codes to designate vent type:

H = Horizontal

V = Vertical

☐ Mark (X) this box if you attach a continuation sheet.

10.12 If the listed substance is emitted in particulate form, indicate the particle size distribution for each Point Source ID Code identified in question 10.09. Photocopy this question and complete it separately for each emission point source.

CBI

☐

Point source ID code ..... NA

Size Range (microns)

Mass Fraction (% ± % precision)

< 1	<u>NA</u>
≥ 1 to < 10	<u>NA</u>
≥ 10 to < 30	<u>NA</u>
≥ 30 to < 50	<u>NA</u>
≥ 50 to < 100	<u>NA</u>
≥ 100 to < 500	<u>NA</u>
≥ 500	<u>NA</u>

Total = 100%

☐ Mark (X) this box if you attach a continuation sheet.

PART C FUGITIVE EMISSIONS

10.13 Equipment Leaks -- Complete the following table by providing the number of equipment types listed which are exposed to the listed substance and which are in service according to the specified weight percent of the listed substance passing through the component. Do this for each process type identified in your process block or residual treatment block flow diagram(s). Do not include equipment types that are not exposed to the listed substance. If this is a batch or intermittently operated process, give an overall percentage of time per year that the process type is exposed to the listed substance. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... MECHANICAL MIXING  
 Percentage of time per year that the listed substance is exposed to this process type ..... NA %

Equipment Type	Number of Components in Service by Weight Percent of Listed Substance in Process Stream					Greater than 99%
	Less than 5%	5-10%	11-25%	26-75%	76-99%	
Pump seals <sup>1</sup>						
Packed	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Mechanical	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Double mechanical <sup>2</sup>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Compressor seals <sup>1</sup>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Flanges	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Valves						
Gas <sup>3</sup>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Liquid	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Pressure relief devices <sup>4</sup> (Gas or vapor only)	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Sample connections						
Gas	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Liquid	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Open-ended lines <sup>5</sup> (e.g., purge, vent)						
Gas	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Liquid	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>List the number of pump and compressor seals, rather than the number of pumps or compressors

10.13 continued on next page

☐ Mark (X) this box if you attach a continuation sheet.

10.13 (continued)

<sup>2</sup>If double mechanical seals are operated with the barrier (B) fluid at a pressure greater than the pump stuffing box pressure and/or equipped with a sensor (S) that will detect failure of the seal system, the barrier fluid system, or both, indicate with a "B" and/or an "S", respectively

<sup>3</sup>Conditions existing in the valve during normal operation

<sup>4</sup>Report all pressure relief devices in service, including those equipped with control devices

<sup>5</sup>Lines closed during normal operation that would be used during maintenance operations

10.14 Pressure Relief Devices with Controls -- Complete the following table for those pressure relief devices identified in 10.13 to indicate which pressure relief devices in service are controlled. If a pressure relief device is not controlled, enter "None" under column c.

CBI

☐

a. Number of Pressure Relief Devices	b. Percent Chemical in Vessel <sup>1</sup>	c. Control Device	d. Estimated Control Efficiency <sup>2</sup>
NA	NA	NONE	NA
NA	NA	NONE	NA
NA	NA	NONE	NA
NA	NA	NONE	NA
NA	NA	NONE	NA
NA	NA	NONE	NA
NA	NA	NONE	NA
NA	NA	NONE	NA
NA	NA	NONE	NA

<sup>1</sup>Refer to the table in question 10.13 and record the percent range given under the heading entitled "Number of Components in Service by Weight Percent of Listed Substance" (e.g., <5%, 5-10%, 11-25%, etc.)

<sup>2</sup>The EPA assigns a control efficiency of 100 percent for equipment leaks controlled with rupture discs under normal operating conditions. The EPA assigns a control efficiency of 98 percent for emissions routed to a flare under normal operating conditions

☐ Mark (X) this box if you attach a continuation sheet.

10.15 Equipment Leak Detection -- If a formal leak detection and repair program is in place, complete the following table regarding those leak detection and repair procedures. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type ..... Mechanical mixing

Equipment Type	Leak Detection Concentration (ppm or mg/m <sup>3</sup> ) Measured at Inches from Source	Detection Device <sup>1</sup>	Frequency of Leak Detection (per year)	Repairs Initiated (days after detection)	Repairs Completed (days after initiated)
Pump seals					
Packed	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Mechanical	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Double mechanical	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Compressor seals	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Flanges	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Valves					
Gas	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Liquid	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Pressure relief devices (gas or vapor only)	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Sample connections					
Gas	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Liquid	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Open-ended lines					
Gas	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Liquid	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>Use the following codes to designate detection device:

POVA = Portable organic vapor analyzer

FPM = Fixed point monitoring

0 = Other (specify) \_\_\_\_\_

☐ Mark (X) this box if you attach a continuation sheet.

☐ Mark (X) this box if you attach a continuation sheet.

- 10.16 Raw Material, Intermediate and Product Storage Emissions -- Complete the following table by providing the information on each liquid raw material, intermediate, and product storage vessel containing the listed substance as identified in your process block or residual treatment block flow diagram(s).

CBI

☐

Vessel Type <sup>1</sup>	Floating Roof Seals <sup>2</sup>	Composition of Stored Materials <sup>3</sup>	Throughput (liters per year)	Vessel Filling Rate (gpm)	Vessel Filling Duration (min)	Vessel Inner Diameter (m)	Vessel Height (m)	Operating Volume (l)	Vessel Emission Controls <sup>4</sup>	Design Flow Rate <sup>5</sup>	Vent Diameter (cm)	Control Efficiency (%)	Basis for Estimate <sup>6</sup>
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup>Use the following codes to designate vessel type:

F = Fixed roof  
 CIF = Contact internal floating roof  
 NCIF = Noncontact internal floating roof  
 EFR = External floating roof  
 P = Pressure vessel (indicate pressure rating)  
 H = Horizontal  
 U = Underground

<sup>2</sup>Use the following codes to designate floating roof seals:

MS1 = Mechanical shoe, primary  
 MS2 = Shoe-mounted secondary  
 MS2R = Rim-mounted, secondary  
 LM1 = Liquid-mounted resilient filled seal, primary  
 LM2 = Rim-mounted shield  
 LMW = Weather shield  
 VM1 = Vapor mounted resilient filled seal, primary  
 VM2 = Rim-mounted secondary  
 VMW = Weather shield

<sup>3</sup>Indicate weight percent of the listed substance. Include the total volatile organic content in parenthesis

<sup>4</sup>Other than floating roofs

<sup>5</sup>Gas/vapor flow rate the emission control device was designed to handle (specify flow rate units)

<sup>6</sup>Use the following codes to designate basis for estimate of control efficiency:

C = Calculations  
 S = Sampling

PART D RELEASE TO WATER

- 10.17 National Pollutant Discharge Elimination System (NPDES) Discharges -- Complete the following information for each body of water NPDES discharges are discharged into.  
CBI If discharges are to more than one body of water, photocopy this question and complete it separately for each discharge.

☐

Discharge source (stream ID code) ..... NA

Is discharge to a moving or standing body of water? Circle the appropriate response.

Moving body of water .... NA ..... 1

Standing body of water ..... NA ..... 2

Estimated average base flow (moving) ..... NA 1/day

Estimated average volume (standing) ..... NA 1

Average volume of discharge from facility ..... NA 1/day

NA days/year

Maximum volume of discharge from facility ..... NA 1/day

NA days/year

Average concentration of listed substance in discharge .... NA mg/l or ppm

Maximum concentration of listed substance in discharge .... NA mg/l or ppm

- 10.18 Publicly Owned Treatment Works (POTW) -- Complete the following information for discharges containing the listed substance which are discharged to a POTW from your facility.  
CBI

☐

Discharge source (stream ID code) ..... NA

Average volume of discharge from facility ..... NA 1/day

NA days/year

Maximum volume of discharge from facility ..... NA 1/day

NA days/year

Average concentration of listed substance in discharge .... NA mg/l or ppm

Maximum concentration of listed substance in discharge .... NA mg/l or ppm

☐ Mark (X) this box if you attach a continuation sheet.



10.19 Nonpoint Sources -- Complete the following information for each nonpoint discharge source. Examples of nonpoint sources include stormwater runoff, waste pile runoff, and runoff from product or raw material storage areas or other sources that contain the listed substance and may be discharged to surface water. Exclude NPDES or POTW discharges. If discharges are to more than one body of water, photocopy this question and complete it separately for each discharge.

CBI

☐ Discharge source (stream ID code) ..... NA

Is discharge to a moving or standing body of water? Circle the appropriate response.

Moving body of water ... NA ..... 1

Standing body of water ..... NA ..... 2

Estimated average base flow (moving) ..... NA 1/day

Estimated average volume (standing) ..... NA 1

Average volume of discharge from facility ..... NA 1/day

NA days/year

Maximum volume of discharge from facility ..... NA 1/day

NA days/year

Average concentration of listed substance in discharge .... NA mg/l or ppm

Maximum concentration of listed substance in discharge .... NA mg/l or ppm

☐ Mark (X) this box if you attach a continuation sheet.

10.20 Releases to Soils -- Complete the following information for up to three random soil core samples that were taken and analyzed for the listed substance during the reporting year. Report the concentrations of the listed substance determined by soil core monitoring studies/tests. Specify the distance from the facility that soil cores were taken, and indicate the soil type and sample depth of the soil cores. (Refer to the glossary for definitions of soil textures given in footnote 2.)

CBI

☐

Sample	Concentration (ug/kg) of Listed Substance ( ± % precision)	Distance from Plant (m) <sup>1</sup>	Soil Texture <sup>2</sup>	Sample Depth (cm)
1	NA	NA	NA	NA
2	NA	NA	NA	NA
3	NA	NA	NA	NA

<sup>1</sup>Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

<sup>2</sup>Use the following codes to designate soil texture:

A = Sand

G = Sandy clay loam

B = Loamy sand

H = Clay loam

C = Sandy loam

I = Silty clay loam

D = Loam

J = Sandy clay

E = Silty loam

K = Silty clay

F = Silt

L = Clay

10.21 Releases to Groundwater -- Complete the following information for up to three random samples of groundwater from monitoring wells during the reporting year that were analyzed for the listed substance. The average and maximum concentration refers to the listed substance.

CBI

☐

Sample	Distance from Plant (m) <sup>1</sup>	Well Depth (m)	Average Concentration (mg/l) ( ± % precision)	Maximum Concentration (mg/l) ( ± % precision)
1	NA	NA	NA	NA
2	NA	NA	NA	NA
3	NA	NA	NA	NA

<sup>1</sup>Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

☐ Mark (X) this box if you attach a continuation sheet.

10.22 Releases to Drinking Water -- Complete the following table for up to three samples from drinking water wells monitored during the reporting year. The average and maximum concentration refers to the listed substance.

CBI

☐

<u>Well</u>	<u>Well Depth (m)</u>	<u>Distance from Plant (m)<sup>1</sup></u>	<u>Average Concentration (mg/l) (+ % precision)</u>	<u>Maximum Concentration (mg/l) (+ % precision)</u>
<u>1</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>2</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>3</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

<sup>1</sup>Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

☐ Mark (X) this box if you attach a continuation sheet.

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PART E NON-ROUTINE RELEASES

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10.23 Indicate the date and time when the release occurred and when the release ceased or was stopped. If there were more than six releases, attach a continuation sheet and list all releases.

Release	Date Started	Time (am/pm)	Date Stopped	Time (am/pm)
1	NA	NA	NA	NA
2	NA	NA	NA	NA
3	NA	NA	NA	NA
4	NA	NA	NA	NA
5	NA	NA	NA	NA
6	NA	NA	NA	NA

10.24 Specify the weather conditions at the time of each release.

Release	Wind Speed (km/hr)	Wind Direction	Humidity (%)	Temperature (°C)	Precipitation (Y/N)
1	NA	NA	NA	NA	NA
2	NA	NA	NA	NA	NA
3	NA	NA	NA	NA	NA
4	NA	NA	NA	NA	NA
5	NA	NA	NA	NA	NA
6	NA	NA	NA	NA	NA

---

☐ Mark (X) this box if you attach a continuation sheet.

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- 10.25 Complete the following information for each media into which the listed substance was released. Any volatile substance that was released to land, but that was expected to volatilize, should be listed as a release to air.

Release No. .... NA

<u>Media</u>	<u>Quantity (kg)</u>	<u>Method of Release</u>	<u>Migration Beyond Boundaries (Y/N)</u>	<u>Quantity Migrated (kg)</u>
Land	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Air	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Groundwater	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Surface water	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

- 10.26 Specify the physical state and concentration of the listed substance at the time and point of release.

Release No. .... NA

Point of release ..... NA

Physical state ..... NA

Concentration (%) ..... NA

☐ Mark (X) this box if you attach a continuation sheet.

10.27 Circle all appropriate responses relating to the cause and the effects of the release.

Release No. .... NA

Cause of Release

Equipment failure ..... NA 1

Operator error ..... NA 2

Bypass condition ..... NA 3

Upset condition ..... NA 4

Fire ..... NA 5

Unknown ..... NA 6

Other (specify) \_\_\_\_\_ NA 7

Results of Release

Spill ..... NA 1

Vapor release ..... NA 2

Explosion ..... NA 3

Fire ..... NA 4

Other (specify) \_\_\_\_\_ NA 5

☐ Mark (X) this box if you attach a continuation sheet.

10.28 Specify which authorities were notified of the release.

Release No. .... NA

a. Federal

Agency [N] [A] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

[illegible]

Contact Person [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

[illegible]

City

[ ]  
State

Telephone Number ..... [ ] [ ] [ ] - [ ] [ ] [ ] - [ ] [ ] [ ] [ ]

Date Notified ..... [ ] [ ] [ ] [ ] [ ] [ ]  
Mo. Day Year

Time Notified ..... [ ] [ ] [ ] [ ] am/pm

b. State

Agency [N]A[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

Office [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Contact Person [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

[illegible]

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )  
City

[ ] [ ]  
State

Telephone Number ..... [ ] [ ] [ ] - [ ] [ ] [ ] - [ ] [ ] [ ] [ ]

Date Notified ..... [ ] [ ] [ ] [ ] [ ] [ ]  
Mo. Day Year

Time Notified ..... [ ] [ ] [ ] [ ] am/pm

10.28 continued below

☐ Mark (X) this box if you attach a continuation sheet.

10.28 (continued)

c. Local

Agency [N][A] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Office \_\_\_\_\_

[illegible][illegible]

City

State

Telephone Number ..... ( ) ( ) ( ) - ( ) ( ) ( ) - ( ) ( ) ( ) ( )

Date Notified ..... [ ] [ ] [ ] [ ] [ ] [ ]  
Mo. Day Year

Time Notified ..... [ ] [ ] [ ] [ ] am/pm

10.29 For each of the proximities listed below, indicate whether the population living within that proximity was notified of, or evacuated because of the release. Specify who notified the population, the number of people evacuated, if any, and the date and time of day the evacuation began.

Release No. .... NA

<u>Proximity to the Release</u>	<u>Notified of Release (Y/N)</u>	<u>Notifying Person</u>	<u>Notifying Person's Telephone Number</u>	<u>Area Evacuated (Y/N)</u>	<u>Number of Persons Evacuated</u>	<u>Date and Time of Day Evacuation Began</u>
1/4 mile	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
1/2 mile	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
1 mile	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Other (specify)	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

☐ Mark (X) this box if you attach a continuation sheet.



10.30 Specify the number of personal injuries or casualties resulting from the release.

Release No. .... N A

Number of injuries to facility employees .....	NA
--	----

Number of injuries to general population .....	NA
--	----

Number of deaths to facility employees .....	NA
--	----

Number of deaths to general population ..... NA

10.31 Indicate who conducted cleanup activities, and the dates over which the cleanup was performed.

Release No. .... NA

[illegible][illegible]

City

     --  
State                      Zip

Telephone Number ..... ( ) ( ) ( ) - ( ) ( ) ( ) - ( ) ( ) ( ) ( )

Date Cleanup Initiated ..... ( ) ( ) ( ) ( )  
Mo. Year

Date Cleanup Completed (or expected) .....      
Mo. Year

10.32 Briefly describe the release prevention practices and policies (backup systems, containment systems, training programs, etc.) in place at the facility at the time the release occurred.

Release No. .... N A

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☐ Mark (X) this box if you attach a continuation sheet.

10.33 Indicate which of the prevention practices and policies listed in question 10.32 were ineffective in preventing the release from reaching the environment.

Release No. .... NA

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10.34 Describe all repairs and/or preventive measures (management practices, operational changes, etc.) made to equipment or operations as a result of the release.

Release No. .... NA

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10.35 Describe additional preventive measures that will be taken to minimize the possibilities of recurrence.

Release No. .... NA

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☐ Mark (X) this box if you attach a continuation sheet.

## APPENDIX I: List of Continuation Sheets

Attach continuation sheets for sections of this form and optional information after this page. In column 1, clearly identify the continuation sheet by listing the question number to which it relates. In column 2, enter the inclusive page numbers of the continuation sheet for each question number.

[illegible]

☐ Mark (X) this box if you attach a continuation sheet.

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APPENDIX II: Substantiation Form and Instructions  
to Accompany Claims of Confidentiality Under the  
Comprehensive Assessment Information Rule (CAIR)

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If you assert one or more claims of confidentiality for information submitted on a Comprehensive Assessment Information Rule (CAIR) form, please answer, pursuant to 40 CFR 740.219, all the following questions in the space provided. Type all responses. If you need more space to answer a particular question, please use additional sheets. If you use additional sheets, be sure to include the section, number, and (if applicable) subpart of the question being answered, and write your facility's name and Dun & Bradstreet Number in the lower right-hand corner of each sheet. A completed copy of this form must accompany all submissions containing one or more claims of confidentiality. Failure to do so will result in the waiver of your claim of confidentiality.

EPA has identified six information categories as those which encompass all claims of confidentiality. These are: Submitter identity (h); Substance identity (i); Volume manufactured, imported, or processed (j); Use information (k); Process information (l); and Other information (m). Respondents who assert a CBI claim on the reporting form must mark the letter(s) (h through m) that represent(s) the appropriate category(ies) of confidentiality in the box adjacent to the question, and answer the questions in this form.

Respondents who assert a CBI claim for information submitted under CAIR must also provide EPA with sanitized and unsanitized versions of their submissions. The unsanitized version must be complete and contain all information being claimed as confidential. The sanitized copy must contain only information not claimed as confidential. EPA will place the second copy of the submission in the public file. Failure to submit the second copy of the form at the time the respondent submits the reporting form containing confidential information or after receipt of a notice from EPA thereafter will result in a waiver of the respondent's claim of confidentiality.

---

Please indicate the CAS Registry Number (if known) or chemical name (if the CAS Registry Number is not known) for the substance that is the subject of this form:

---

If you are reporting on a tradename, please provide the tradename for the substance that is the subject of this form:

---

Does this form contain CBI?    ☐ Yes                      ☐ No

If the answer to this question is yes, you must bracket the text claimed as CBI. Any unbracketed information may be placed in the public file.

---

☐ Mark (X) this box if you attach a continuation sheet.

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A. All Claims. Respondents who assert any CBI claims must answer the following questions in addition to the appropriate questions from sections B through G, below:

(1) For what period do you assert a claim of confidentiality? If a claim is to extend until a certain event or point in time, please indicate that event or time period. If the period indicated is longer than 2 calendar years, explain why. If different periods of protection are required for different categories of information, please so indicate.

(2) Has the information that you are claiming as confidential been or will it be disclosed to individuals outside your company?

☐ Yes                      ☐ No

If so, what, if any, restrictions apply to the use or further disclosure of the information?

(3) Briefly describe the physical and procedural restrictions, if any, within your company on the use and storage of the information you are claiming as confidential. What other steps have you taken to prevent the undesired disclosure of the information by others?

(4) Does the information you are claiming as confidential appear or is it referred to in advertising, promotional, or safety materials for the substance or an end-product containing the substance?

☐ Yes                      ☐ No

Does it appear or is it referred to in professional or trade publications?

☐ Yes                      ☐ No

If so, indicate why the information should nonetheless be considered confidential.

---

☐ Mark (X) this box if you attach a continuation sheet.

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(5) If the information you wish to claim as confidential were to be disclosed to the public by EPA, how much difficulty would a new competitor have in entering the market for this substance, considering such constraints as capital and marketing costs, specialized marketing expertise, or unusual production processes?

(6) Has EPA, another Federal agency, or a Federal Court made any pertinent confidentiality determinations for information regarding this substance?

☐ Yes                      ☐ No

If so, please identify the entity and provide EPA with copies of such determinations.

B. Submitter Identity (code h). Respondents who assert CBI claims for submitter identity must also answer the following questions:

(1) Approximately how many competitors do you have in the market for this substance or the final product containing this substance?

(2) What harm, if any, would result from EPA's disclosure of the submitter identity? Provide detailed descriptions of both the probable harm from disclosure and the causal relationship between disclosure and harm.

(3) If you have also asserted a claim of confidentiality for substance identity, what harm to your company's competitive position would result from disclosure of your company's identity if the substance identity were to remain confidential?

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☐ Mark (X) this box if you attach a continuation sheet.

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C. Substance Identity (code i). Specific substance identity can be claimed as confidential only if that substance identity is confidential for purposes of the TSCA Chemical Substance Inventory. Respondents who assert CBI claims for substance identity must also answer the following questions:

- (1) (a) Has the substance been patented or disclosed in a patent in the U.S. or elsewhere?

[ ] Yes                      [ ] No

If so, indicate the relevant patent(s) and the reasons why the substance identity should nonetheless be considered confidential.

Patent Number: \_\_\_\_\_

- (b) Exactly what information which does not appear in the patent would be disclosed to competitors by releasing the specific substance identity? Explain in detail how competitors could use this information.

- (c) Since the patent provides protection for the substance, why are you asserting confidentiality?

- (2) (a) In what form (i.e., product, effluent, emission, etc.) does this substance leave your site?

- (b) What measures have you taken to guard against the discovery of the substance identity by others?

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[ ] Mark (X) this box if you attach a continuation sheet.

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(c) If the substance is formulated with other chemicals, list them, and state the concentration of the claimed substance in the mixture.

(3) (a) If the substance leaves the site in a product that is available to the public or your competitors, can the substance be identified by analysis of the product?

☐ Yes                      ☐ No

(b) Is it likely that a competitor has attempted or will attempt to chemically analyze the substance?

☐ Yes                      ☐ No

(c) Would the cost and difficulty of such analysis be great or small? Why?

(4) What harm, if any, would result from EPA's public disclosure of the specific chemical identity? Provide detailed descriptions of both the probable harm to your company from disclosure and the causal relationship between release and harm.

(5) Would public disclosure of the specific chemical identity reveal to your competitors the use of the substance or the process by which this substance is manufactured?

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☐ Mark (X) this box if you attach a continuation sheet.

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D. Volume Manufactured, Imported, or Processed (code j). Respondents who assert CBI claims for volume manufactured, imported, or processed must also answer the following questions:

(1) If you have also claimed submitter's name as confidential and EPA keeps confidential the link between your company identity and the volume manufactured, imported, or processed, your identity will not be associated in any way with that volume. In this case, what harm to your company's competitive position would result from disclosing that volume? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(2) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the volume manufactured, imported, or processed, the substance identity will not be associated in any way with that volume. In this case, what harm to your company's competitive position would result from disclosing that volume? How could a competitor use that information? What is the causal relationship between the disclosure and the harm?

(3) If you have claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your volume manufactured, imported, or processed? Provide a detailed description of both the harm and the causal relationship between disclosure and harm.

E. Use Information (code k). Respondents who assert CBI claims for use information must also answer the following questions:

(1) If you have also claimed submitter identity as confidential and EPA keeps confidential the link between your company identity and the use data, your identity will not be associated in any way with the use data. In this case, what harm to your competitive position would result from disclosing the use data? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

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☐ Mark (X) this box if you attach a continuation sheet.

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(2) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the use data, the substance identity will not be associated in any way with the use data. In this case, what harm to your company's competitive position would result from disclosing the use data? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(3) If you have claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your use information? Provide a detailed description of both the harm and the causal relationship between disclosure and harm.

F. Process information (code 1). Respondents who assert CBI claims for process information must also answer the following questions:

(1) If you have also claimed submitter identity as confidential and EPA keeps confidential the link between your company identity and process information, your identity will not be associated in any way with this information. In this case, what harm to your competitive position would result from disclosing the process information? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(2) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the process information, the substance identity will not be associated in any way with the process information. In this case, what harm to your company's competitive position would result from disclosing the process information? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

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☐ Mark (X) this box if you attach a continuation sheet.

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(3) If you claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your process information? Provide a detailed description of both the harm and the causal relationship between the disclosure and the harm.

G. Other information (code m). Respondents who assert CBI claims using the "other information" category, must also answer the following questions:

(1) Is the item confidential in and of itself, or is it confidential because it will reveal some other confidential information, whether or not that other information is reported on this form? If the latter, what is the information that will be revealed, and how would disclosure of the item in turn lead to disclosure of the other information?

(2) Describe with specificity the harm to your company's competitive position which would result from disclosing the information.

(3) If you have also claimed submitter identity as confidential and EPA keeps confidential the link between your company identity and this information, your identity will not be associated in any way with the item claimed. In this case, what harm to your competitive position would result from disclosing the item? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(4) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the item, the substance identity (other than category name) will not be associated in any way with the item claimed. In this case, what harm to your company's competitive position would result from disclosing the item? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

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☐ Mark (X) this box if you attach a continuation sheet.

I certify that I have personally examined and am familiar with the information submitted in this CBI Substantiation Form and all attached documents. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

NAME

SIGNATURE

DATE SIGNED

TITLE

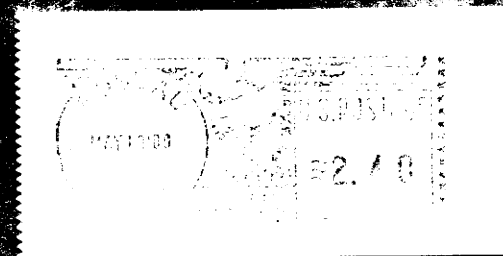
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